THE TRADE – OFF BETWEEN ACCOUNTING COMPARABILITY AND REPRESENTATIONAL FAITHFULNESS WITH MANDATORY INTERNATIONAL FINANCIAL REPORTING STANDARDS ADOPTION

by

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ABSTRACT

In this thesis, I examine the impact of the mandatory adoption of International Financial Reporting Standards (IFRS) on accounting comparability and representational faithfulness. The motivation for the study is to provide further evidence on whether mandatory IFRS adoption improves accounting comparability, and whether this improvement comes at the cost of reduced representational faithfulness. The faithful representation of the underlying economic phenomena of the reporting entity and accounting comparability are both desirable qualitative characteristics of financial information. Nevertheless, the conceptual framework considers comparability to be of secondary importance relative to representational faithfulness. That is, greater comparability is preferable, provided the accounting information is faithfully representative of the underlying economic phenomena.

I document empirically that both cross-country and within-country accounting comparability increase while representational faithfulness decreases with mandatory IFRS adoption. Inconsistent with my prediction, I find that the impact of IFRS adoption on within-country comparability is not conditional on the flexibility of the local accounting standards relative to IFRS. Moreover, the results suggest that while all firms experience decreases in representational faithfulness, firms with higher quality local accounting standards than IFRS experience fewer decreases in representational

faithfulness than firms with lower quality local accounting standards than IFRS. Overall, my results provide evidence of a trade-off between improved cross-country accounting comparability and reduced representational faithfulness among all adopters of IFRS. The empirical evidence from this study shall be of interest to policy and accounting standard setters.

TABLE OF CONTENTS

LIST OF TABLES

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CHAPTER 1

INTRODUCTION

In this thesis, I examine the impact of the mandatory adoption of International Financial Reporting Standards (IFRS) on accounting comparability and the representational faithfulness of accounting information. The motivation for my study is to investigate whether the improvement in accounting comparability from mandatory IFRS adoption comes at the "cost" of reduced representational faithfulness.

The faithful representation of the underlying economic phenomena of the reporting entity (hereafter, used interchangeably with accounting quality or quality) and accounting comparability (hereafter, used interchangeably with comparability) are both desirable qualitative characteristics of financial information (FASB, 2010). Nevertheless, the conceptual framework considers comparability to be of secondary importance relative to representational faithfulness. That is, greater comparability is preferable, provided the accounting information is faithfully representative of the underlying economic phenomena.[1]

Consistent with FASB and prior literature (Lang, Maffett & Owens, 2010), I view accounting comparability as the situation where firms apply the same accounting

[1] Specifically, the financial accounting conceptual framework treats relevance and representational faithfulness as fundamental characteristics of financial reporting, and comparability, verifiability, timeliness, and understandability as enhancing qualitative characteristics of financial reporting (FASB, 2010).

methods to the same or similar economic phenomena. As envisioned in the conceptual framework, when the financial information is faithfully representative of the underlying economic phenomena, comparability enhances the decision usefulness of accounting information. Also consistent with the conceptual framework's treatment of comparability as a qualitative characteristic of secondary importance, accounting comparability does not enhance the decision usefulness of accounting information, when it results in substantial declines in representational faithfulness.

The adoption of IFRS is likely to improve cross-country accounting comparability. The concern, however, is that the adoption might cause accounting quality to decrease. This is because local accounting standards might have developed to reflect the unique underlying economics of the country and IFRS might not fit a specific country's cultural and economic environment, thus reducing the ability of the accounting system to faithfully represent the underlying economics. Therefore, with mandatory IFRS adoption, firms could achieve improved comparability while sacrificing quality.

IFRS adoption might have a different impact on within-country comparability than cross-country comparability. The impact of IFRS adoption on within-country comparability is conditional on the flexibility of the local standards relative to IFRS. If the pre-IFRS local accounting standards offer more flexibility than the IFRS, the adoption of IFRS will likely improve within-country comparability. If the pre-IFRS local accounting standards offer less flexibility than the IFRS, the adoption of the IFRS will likely reduce within-country accounting comparability.

My sample for most tests is approximately 3,000 – 6,000 firm-year observations over the period of 2000 to 2009. I measure accounting comparability as the degree of

difference between matched firms' ROE that is not explained by differences in economic indicators. I measure representational faithfulness as accruals quality estimated by the modified Dechow and Dichev model. I find that both cross-country and within-country comparability increases for all adopters, but representational faithfulness decreases with the adoption of IFRS. Inconsistent with my prediction, however, I do not find that the flexibility of local accounting standards significantly impacts the change in within-country comparability following IFRS adoption. Moreover, the results suggest that while all firms experience decreases in representational faithfulness, firms with higher quality local accounting standards than IFRS experience fewer decreases in representational faithfulness than firms with lower quality local accounting standards than IFRS. Overall, my results provide evidence of a trade-off between improved cross-country accounting comparability and reduced representational faithfulness among all adopters of IFRS.

My study makes several contributions to the accounting literature. First, my study examines whether a trade-off exists between cross-country accounting comparability and representational faithfulness with mandatory IFRS adoption. Although some studies examine the impact of IFRS adoption on accounting quality or comparability distinct from one another (Ahmed, Neel & Wang, 2012; Chen, Tang, Jiang, & Lin 2008; Lang et al., 2010), no study has examined how IFRS adoption impacts accounting quality and comparability for the same firm at the same time. By examining both characteristics of accounting information together, I provide further evidence of the impact of the adoption of IFRS on the properties of financial reporting.

Second, my study examines how IFRS adoption impacts within-country accounting comparability. The impact of IFRS adoption on within-country and cross-

country accounting comparability could be different due to the impact of the flexibility of the pre-IFRS local accounting standards relative to IFRS. My study is the first to provide evidence on this matter.

Finally, I introduce alternative and refined comparability measures. Existing measures developed by De Franco, Kothari and Verdi (2011) in the U.S. market and modified by Lang et al. (2010) in the international setting might not be suitable for all settings.[2] These papers measure comparability as the difference in the relationship between E/P and returns, which could be influenced by many nonaccounting factors. My measures differ from those measures in that I control for the impact of differences in nonaccounting factors (e.g., performance) on differences in firms' ROE, so that the remaining difference reflects accounting method choices.

The rest of the thesis is organized as follows: Chapter 2 provides a review of the prior literature. Chapter 3 develops my hypotheses. Chapter 4 includes a discussion of my proxy construction and the construct validity test of my comparability measures, and Chapter 5 discusses the research design. Chapter 6 provides the data and sample selection process and descriptive statistics. While Chapter 7 provides results for the empirical analysis, Chapter 8 presents results for the sensitivity analyses. Chapter 9 concludes the thesis.

[2] In fact, the measures developed by De Franco et al. (2011) and modified by Lang et al. (2010) display different properties in the U.S. market and the international setting, suggesting concerns about the ability of these measures to capture the underlying constructs that the authors intend to capture. Moreover, these measures require quarterly data, which are not available in the international setting.

CHAPTER 2

LITERATURE REVIEW

In this section of the thesis, I conduct a comprehensive literature review with a historical approach. I first review the history of the early accounting standards harmonization efforts in the Europe Union (EU) in the 1970s and 1980s. Next, I discuss the modern convergence efforts and the voluntary adoption of the International Accounting Standards (IAS) in the 1990s and early 2000s. I then discuss the concurrent global accounting standards convergence efforts from 2002 to present, including the mandatory IFRS adoption in the EU in 2005 and the convergence between the U.S. GAAP and IFRS. As I review the harmonization and convergence efforts over time, I discuss studies related to each stage of the history. The focus of the literature review is on studies about the impact of the mandatory IFRS adoption on accounting quality and comparability.

Early Harmonization Efforts in the European Union

Differences in legal systems, along with differences in political and economical systems, created the extremely diverse and country-specific accounting systems in Europe (Soderstrom & Sun, 2007). Because of the difficulty of comparing financial statements prepared under different accounting systems, and because of the need for

cross-border investment, the European Commission (EC) started to harmonize accounting systems in the early 1970s and 1980s by issuing several directives to reduce the differences among accounting standards in the region. The directives are legally binding instruments that are addressed to the member states by the Council of Ministers. They specify financial reporting requirements and permit alternatives to accounting rules (Joos & Lang, 1994). The objective of the directives was to make financial statements more comparable in terms of presentation format and recording, as well as measurement rules.

The Fourth Directive and the Seventh Directive (enacted in 1978 and 1983, respectively) were among the most influential. The Fourth Directive is applicable to all limited liability companies and was implemented by all member states by 1991 (Joos & Lang, 1994). The Seventh Directive focuses on consolidation and addresses issues relevant to multinational companies. In regards to these two directives, Soderstrom and Sun (2011) state that:

> The Fourth Directive specifies "True and Fair View" (TFV) as an overriding principle of financial reporting, and defines the format and measurement of balance sheets and income statements. TFV is a broad concept in which accounts are reported with the aim of providing unbiased information about activities that affect a company's intrinsic value (Ekholm & Troberg, 1998). The Seventh Directive addresses issues associated with consolidations. It sets forth requirements for consolidation and applies TVF to consolidated financial statements. (p. 7)

The intent of the directives was to create a set of integrated accounting standards to establish a basic level of transparency and comparability to facilitate cross-listing and cross-border investment (Joos & Lang, 1994). The most clear effects of the application of both directives are the adoption of TFV and the separation of book-tax accounting conformity (Soderstrom & Sun, 2011), but the more specific requirements on measurements are left to the EU member countries' discretion (Joos & Lang, 1994). The

effectiveness of the two directives is thus, a source of debate. Particularly, the discussion focuses on whether the directives have presented more form than substance. Proponents of the TFV approach contend that the adoption of the TFV approach can give firms additional flexibility to present the particular circumstance of the firm appropriately, while opponents argue that the approach will give managers too much leeway.

Joos and Lang (1994) were among the first researchers to provide empirical evidence on the effectiveness of the directives in mitigating the accounting measurement diversity among firms in Germany, France, and the United Kingdom (U.K.). Germany and the U.K. are the originators of two primary accounting philosophies in the world: the Anglo-Saxon and the Continental models. France is somewhere in between the two models (Joos & Lang, 1994). The Anglo-Saxon model focuses primarily on investors and allows discretion of preparation of financial reporting if the resulting statements are the "true and fair view" of the underlying financial situation. It decouples the link between financial reporting and tax accounting. The Continental model focuses primarily on debt holders. It codifies financial reporting and has a strong link between financial and tax accounting (Joos & Lang, 1994). The authors argue that if the directives are effective in reducing the differences in accounting measurement rules, the effect should be evident for firms from the three countries included in the study.

Specifically, the authors examine the convergence of three financial ratios across the three countries: return on equity (ROE), earnings/price (E/P) ratio, and book-to-market (B/M) ratio with the adoption of the directives. They also evaluate the association between returns and earnings to study the value relevance of reported accounting data. Their analysis is based on annual financial statement data and monthly market data for

1982-1990 with data coming from the Global Vantage Industrial Commercial Data Base. The results suggest that significant differences in the three ratios do exist in the pre-directive period and the differences are consistent with the differences in the accounting systems of the three countries. They find no evidence that these differences in accounting ratios reduce after the implementation of the directives. The authors cautiously conclude that the directives have done little to mitigate the measurement differences in the accounting systems across the three countries.

Harris, Tang, and Muller (1994) conducted a similar study to examine the value relevance of the German GAAP and the U.S. GAAP before and after the implementation of the directives. They regress returns on earnings and changes in earnings, and find no difference in the explanatory power between German and U.S. GAAP earnings in the pre- and postimplementation periods. In addition, they find no difference in explanatory power for the German firms after the adoption of the directives. When regressing returns on earnings and book values of equity, they find that the U.S. firms have higher explanatory power. They also compare the value relevance of reported earnings and Deutsche Vereinigung für Finanzanalyse und Anlagenberatung (DVFA)[3] earnings and find limited evidence that the explanatory power increases when using the DVFA earnings.

In summary, although the objective of the EC directives is to harmonize the accounting standards in the European Union, studies suggest that the actual effect of the laws is unclear. Nevertheless, the directives result in a uniformed format of financial reporting. Moreover, the directives are the pilot step towards accounting harmonization,

[3] DVFA is the German financial analyst society which developed a mechanism to transform reported earnings to permanent earnings (Soderstrom & Sun, 2011).

which extends into today's accounting convergence efforts in the world (Soderstrom & Sun, 2011).

Modern Convergence Efforts around the World and Voluntary Adoption of IAS

The FASB, or Financial Accounting Standards Board, noted that "By the 1990s, the notion of harmonization was replaced by the concept of *convergence* - the development of a single set of high-quality, international accounting standards that would be used in at least all major capital markets" (FASB, 2012). There were continued efforts to reduce accounting differences across countries in the 1990s. Countries like the U.S., U.K., and Canada worked together to develop joint standards, and auditing firms also worked together to develop consistent practice standards for the industry (Land & Lang, 2002).

These convergence efforts stem from steps in the international accounting standards as early as the 1960s. In 1973, the first international body to set accounting standards, the International Accounting Standards Committee (IASC), was established by the American Institute of Certified Public Accountants (AICPA). Its mission was to formulate and publish accounting standards to be used by audited accounts. It also promoted the acceptance of the standards worldwide (FASB, 2012). The FASB began to collaborate with the IASC in the late 1970s. In 1979, the FASB decided to include members of the U.K. Accounting Standards Board on the project it was undertaking. In 1988, the FASB became a member of the IASC Consultative Group. Also in this year, the FASB expressed its support for international accounting standards. In the 1990s, the

FASB expanded and formalized its international activities. The U.S. Congress and the Securities and Exchanges Commission (SEC) also got involved in international accounting standards. In fact, the FASB was directly involved in the working force that led to restructuring of the IASC into the IASB in 2001 (FASB, 2012).

The late 1990s saw a surge in voluntary adoption of IAS due to two reasons. First, firms' listing decisions are based on characteristics of the stock exchanges. As stock exchanges in Europe favored IAS, more firms chose to adopt IAS. For example, Germany's New Market, launched in 1997, required all listing firms to use either IAS or U.S. GAAP (Soderstrom & Sun, 2011) to prepare financial reports.

Second, IAS was much improved between 1987 and 1998. In 1987, the IASC started a major project (the Comparability and Improvements Project) to eliminate accounting choices in response to criticism that the IAS allows too much leeway for non-compliance and too many opportunities for earnings management (Soderstrom & Sun, 2011). The Comparability and Improvements Project was finished in 1993, which resulted in 10 new standards being issued (Harris & Muller, 1999; Soderstrom & Sun, 2011). In addition, a set of new core IAS standards was issued in 1998 (Soderstrom & Sun, 2011). These new standards require firms to comply fully with the standards. Several countries, including Austria, Belgium, France, Germany, Italy, and Switzerland permitted firms to use IAS instead of their local accounting standards.

Land and Lang (2002) examine whether cross-country differences in earnings multiples have changed over the period of 1987-1999 with the convergence of accounting standards for a sample of firms from Australia, Canada, France, Germany, Japan, the U.K., and the U.S. They find evidence of convergence in earning/price (E/P) ratio, book

to market (BTM), and return on equity (ROE). Moreover, they find that the convergence persists after controlling for earnings, sales and GDP growth rate, interest rates, and returns. They find similar convergence patterns on accruals multiples, suggesting that the convergence is driven by the pricing of accruals. They find that accruals/cash flows association and book value multiples have become similar across the sample firms over the sample period. Furthermore, they find that although earnings ratios become similar for firms across the sample countries, the ratios are systematically different for countries with code law and common law origins. Specifically, the E/P and ROE ratios are the lowest for the Japanese and German firms; consist with the fact that code-law countries have more conservative accounting measurement rules for income statements. Similarly, E/P and ROE are generally higher for firms in the common-law countries (Australia, Canada, U.K., and U.S.), which reflects the fact that common-law countries generally focus more on equity holders and have less conservative accounting measurements. The authors interpret the evidence as a suggestion of reduction of accounting practice differences over time with systematic differences in accounting practices remaining.

Properties of IAS versus other Local Accounting Standards

Several studies focus on comparing the properties of IAS relative to those of other national (country-specific GAAP) standards (Ashbaugh & Olsson, 2002; Ball, Kothari & Robin, 2000; Barth, Landsman & Lang, 2008; Harris & Muller, 1999; Gorden, Jorgensen, & Linthicum, 2010). Harris and Muller (1999) study the quality of IAS and U.S. GAAP earnings by examining whether 20-F reconciliation items convey information to explain stock prices and returns. Their results are sensitive to the regression models specified.

They find that there are no significant differences in earnings and book values of equity between IAS and the U.S. GAAP. Their finding may be due to self selection bias because their sample firms are firms cross-listed in the U.S. These firms may choose accounting methods consistent with the U.S. GAAP without violating IAS (Ashbaugh & Olsson, 2002; Soderstrom & Sun, 2011). Ashbaugh and Pincus (2001) find that analyst forecast errors of companies using IAS are smaller than those using domestic GAAP. In a similar vein, Barth et al. (2008) find that companies using IAS exhibit less earnings smoothing, more timely loss recognition, and more value relevance than those applying domestic (Non-U.S.) GAAP, for a sample of 319 IAS firms from 1990 to 2003.

In addition, Gorden et al. (2010), using a set of firms that were cross-listed in the U.S. capital market and reported both IFRS and reconciled U.S. GAAP earnings for the period of 2004-2006, find that earnings quality, using proxies of earnings attributes most commonly evaluated in the accounting literature, is not distinguishable using IFRS or U.S. GAAP with two exceptions: the U.S. GAAP exhibits more cash persistence and value relevance. They find that both IFRS and U.S. GAAP accruals are incrementally informative over cash flows. They further provide evidence that U.S. GAAP net income has incremental informativeness over IFRS earnings and cash flows, but the reverse is not true. They conclude that U.S. GAAP earnings exhibit higher information content.

Hung and Subramanyam (2007) compare the value relevance of the IAS and the German GAAP by regressing stock prices on book values and net incomes. They find that although the explanatory power for the regression under the two standards is not significantly different, the coefficient of book values is higher for IAS and the coefficient of net income is higher for the German GAAP. Their results suggest the existence of

major differences between IAS and German GAAP.

In summary, most of the studies for this period compare the quality of accounting or earnings in some specific aspects (i.e., earnings attributes) between local standards and IAS within a specific country. In general, they suggest that non-U.S. GAAPs are of lower quality than IAS, but that the U.S.GAAP is of higher quality than IAS.

IFRS Convergence and Mandatory Adoption in the 2000s

The IASC was formed in 1973 as the first international standards-setting body. In 2001, it was reorganized and became the International Accounting Standards Board (IASB), an independent international standard setter. The acceptance of international accounting standards has progressed rapidly since the IASB's formation. The accounting standards issued by the IASB are named International Financial Reporting Standards (IFRS). Today, over 100 countries other than the European Union either require or permit the use of International Financial Reporting Standards issued by the IASB (FASB, 2012).

The objective of the IASB and the IFRS Foundation "is to develop, in the public interest, a single set of high-quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles" (IASB, 2012). To achieve this goal, the IASB works closely with stakeholders around the world. Progress toward this goal has been obvious. In June 2002, the EU issued a statement to require all companies listed in the EU to use IFRS in their consolidated financial reports for years beginning 2005. Many of the other major economies have also established timelines to converge with or adopt IFRS in the near future (IASB, 2012). As of 2009, Japan and China were also working on converging their standards with IFRS (FASB, 2012).

In addition to the supportive forces in the accounting world, the Group of 20 Leaders (G20) also supports the international accounting standards convergence efforts. In 2009, the leaders called on international accounting bodies to put in more efforts to achieve this convergence goal. Moreover, they urged the FASB and the IASB to finish their convergence project by June 2011 (IASB, 2012).

Convergence of IFRS with U.S. GAAP

The FASB and the IASB have been working closely together to improve and converge the U.S. GAAP and IFRS since 2002. In 2002, the FASB and the IASB issued the Norwalk Agreement, establishing the goal of developing compatible and high quality accounting standards that can be used domestically and internationally. The agreement also set up strategies to achieve the goal including eliminating small differences, when possible, and developing standards jointly. In 2006, the FASB and the IASB issued the Memorandum of Understanding (MoU) that laid out the desired progress to be achieved by 2008. The MoU reaffirmed the objective of developing high quality common accounting standards by the two boards. It also set out guidelines in achieving the convergence goal. In 2007, the SEC eliminated the reconciliation requirement for foreign firms that use IFRS as issued by the IASB. The two boards updated the MoU in 2008 to report the progress they made and to establish the convergence goal up to 2011. In November 2008, the SEC issued a proposed roadmap to lay out the potential adoption of IFRS by U.S. firms starting in 2014. Under the roadmap, the SEC would decide by 2011 whether it was beneficial to the public interest for U.S. firms to adopt IFRS.[4] The

[4] In fact, whether the U.S. should adopt IFRS is still a debate in 2012.

roadmap also proposed to give U.S. issuers the option of using IFRS as issued by the IASB as early as 2009 (FASB, 2012).

In 2010, the SEC issued a statement to lay out its position on international accounting standards. The statement reflects the Commission's continued support for a single set of high quality international accounting standards. It also continues to encourage the convergence of IFRS and the U.S. GAAP. It directs the SEC staff to work out a plan to lay out factors and areas for the SEC staff to consider before potentially transitioning the current U.S. financial reporting system into one that incorporates IFRS. The SEC has issued quarterly progress report since then to update their progress on the projects related to the potential use of IFRS by U.S. issuers (FASB, 2012).

Lindahl and Schadéitz (2009) study the degree of convergence between U.S. GAAP and IFRS after years of convergence efforts by the FASB and the IASB. They compare the three primary financial statements under the two sets of accounting standards from 2004 and 2006. They find that there are still large differences in income calculation and share holders' equity, but that the number of items that are different is decreasing. Their study suggests that convergence is playing a positive role in reducing the differences between the two sets of standards.

Theoretical Underpinnings and Determinates of Financial Reporting Characteristics

Ball (2006) warns that there is no settled theory on assessing the advantages and disadvantages of adopting a single set of global accounting standards. However, the widespread agreement is that financial reporting quality and comparability are

determined by the overall institutional factors of the country where firms reside and the country where firms file their financial reports, as well as industry and firm level factors, such as business model, operating cycle, and financial reporting incentives (Hail, Leuz & Wysocki, 2009). The institutional factors include the political, legal, and tax systems (Guenther & Young, 2000; Haw, Hu, Hwang & Wu, 2004; La Porta, Lopez-de-Silanes, & Shleifer, 2006; Leuz & Oberholzer – Gee, 2006; Soderstrom & Sun, 2007), ownership and capital structure (Ball & Shivakumar, 2005; Burgstahler, Hail, & Leuz, 2006; Fan & Wong, 2002; Soderstrom & Sun, 2007), capital market development (Ali & Hwang, 2000; Soderstrom & Sun, 2007), economy (Bushman & Piotroski, 2006), and the required financial reporting standards. Moreover, the accounting system is a complementary component of the country's overall institutional system (Ball, 2001; Soderstrom & Sun, 2007). Because of the interdependent nature of the country's accounting system, its institutional setting, and the firm level reporting incentives, it is difficult to predict how changing a country's financial reporting standards, one element of the overall institutional factors, will impact financial reporting of the firm and its informational environment.

Impact of Mandatory IFRS Adoption on Accounting Quality

Many studies examine the effects of mandatory IFRS adoption on accounting/earnings quality and other related economic consequences. Landsman, Maydew, and Thornock (2011) find that abnormal return volatility at annual earnings announcements increases in countries that mandated IFRS adoption relative to countries that maintain domestic accounting standards. Moreover, they find that the increases in

abnormal return volatility are concentrated in code law versus common law origin countries.

Chen et al. (2008) use a sample from 15 EU countries from the years 2000 to 2007 to examine the effects of mandatory IFRS adoption on accounting quality measured as earnings smoothing, managing earnings toward targets, the magnitude of absolute discretionary accruals, and accruals quality. They find that overall, earnings smoothing is not improved in the postmandatory adoption period. The authors do not find significant changes in managing earnings toward targets before versus after IFRS adoption. In addition, they find that absolute discretionary accruals are significantly lower in the mandatory adoption period than in the nonmandatory adoption period, however, they find mixed results regarding accruals quality: no significant change in accruals quality estimated by the cross-sectional Dechow and Dichev model, but significant decrease in accruals quality estimated by the modified Dechow and Dichev model. Unfortunately, this study does not utilize control samples to tease out the confounding effects of concurrent changes in economic and other institutional factors around the world.

A recent study by Ahmed et al. (2012) also examines the impact of mandatory IFRS adoption on accounting quality from a sample of 21 treatment and 12 control countries. They measure accounting quality as earnings smoothing, the aggressiveness of accruals reporting, and timeliness of loss recognition. Their findings suggest that earnings quality decreases with mandatory IFRS adoption. They report that IFRS adoption results in smoother earnings, more aggressive reporting of accruals and a reduction in timeliness of loss recognition relative to gain recognition. Further, they show that the decreases in accounting quality are more pronounced for strong law countries.

In summary, the studies that directly examine changes in accounting quality find mixed results on the impact of mandatory IFRS adoption on accounting quality. This might be due to the different proxies of accounting quality or the various data sources they use. Different from those studies which examine the impact of IFRS adoption on accounting quality alone, I investigate how IFRS adoption impacts both accounting quality and comparability for the same firm at the same time. That is, my study examines whether IFRS adoption has a negative impact on accounting quality, while bringing improvement in accounting comparability.

Impact of Mandatory IFRS Adoption on Accounting Comparability

Beuselinck, Joos, and Van de Meulen (2007) examine comparability of earnings quality for 14 EU countries from 1990-2005. They find that the accruals/cash flow association has become less negative over time, suggesting higher earnings quality. Interestingly, they find that there are more cross-country variations in the accruals/cash flows association in 2005 than in earlier periods, which implies less comparability in quality with IFRS adoption. The results from this study shed some light on the effects of mandatory IFRS adoption on comparability of earnings quality, but the study does not examine accounting comparability directly.

Cascino and Gassen (2009) examine whether incentives or accounting standards shape accounting outcomes by examining the effects of IFRS adoption on the comparability of financial statements in Germany and Italy, two code law European countries. They begin by examining two earnings attributes, asymmetric timeliness and

earnings smoothness, in the pre- and post-2005 periods both within and across the two countries. They find weak evidence that these earnings attributes are different across countries in the pre-2005 period, but these differences between countries tend to disappear after 2005.

They also investigate a nonearnings attribute of accounting information: the level of intangible assets reported between firms in these two countries in the pre- and post-2005 periods. They find a significant IFRS adoption effect: the German firms report a significantly lower level of intangible assets than the Italian firms in the pre-IFRS period, but those differences diminish in the post-IFRS period. Lastly, using hand collected data from 2006 annual reports, they document that the level of compliance of IFRS measurement and disclosure is not comparable across firms and countries.

The above study provides a unique setting to examine the impact of mandatory IFRS adoption on the comparability of financial information; however, the sample is limited to only two code law countries, which makes it difficult to generalize the evidence to other countries, especially to common law countries. In addition, the comparability proxies used in this study are not readily obtainable for most researchers and are difficult to generate on a large scale.

Recently, Lang et al. (2010) examined changes in cross-country financial statement comparability around mandatory IFRS adoption using the two comparability measures developed by De Franco et al. (2011). The first comparability measure is the comparability of the mapping of returns into earnings between two firms from the same industry but different countries, and the second comparability measure is the co-movement of earnings between two firms in the same industry but different countries.

They find that these two measures capture different aspects of accounting information in the international setting than in the U.S. setting. Specifically, they find that earnings co-movement is negatively associated with analyst forecast accuracy, and positively associated with forecast dispersion and bid-ask spread. This is in direct contrast with the findings in the De Franco et al. (2011) study. Although they find similar properties regarding the accounting comparability measure to those in the De Franco et al. (2011) study, surprisingly, they find that mandatory IFRS adopters experience less comparability improvement relative to a control sample of nonadopters. The findings in the study are suggestive that the metrics used in De Franco et al. (2011) might not be ideal in certain situations.

In summary, empirical results from studies in this category do not provide conclusive evidence on the impact of mandatory IFRS adoption on accounting comparability on a large scale over time, which is why additional studies on comparability are necessary.

CHAPTER 3

HYPOTHESIS DEVELOPMENT

As discussed in the literature review section, prior studies suggest that reported financial statement numbers are the outcome of the economic events or transactions that occurred during the reporting period, and the accounting standards used to prepare the financial statements. On one hand, the adoption of IFRS should induce comparable accounting information. This is because a single set of accounting standards eliminates multiple accounting methods that were permitted under domestic accounting standards. On the other hand, however, properties of accounting information are impacted by multiple factors, including the underlying economic environment, managerial incentives, and institutional factors. Moreover, IFRS is generally considered to be a set of principle-based standards issued with relatively little implementation guidance. According to Schipper (2005), even if accounting standards are identical, financial reporting practices will not be identical if the implementation guidance is not the same.

In summary, because of the financial reporting incentives and complementary nature of accounting standards relative to other institutional factors, it is not clear how changes in accounting standards alone will affect accounting comparability (Ahmed et al., 2012; Chen et al., 2010; Hail et al., 2009; Watts & Zimmerman ,1986). If, as suggested by prior literature, properties of accounting numbers are primarily driven by reporting

incentives, the adoption of IFRS might not lead to improved accounting comparability. However, prior studies also suggest that harmonizing accounting standards leads to harmonized accounting outcomes (Cascino & Gassen, 2009; Joos & Lang, 1994). Following this line of thinking, I argue that IFRS adoption will likely increase the comparability of financial statements across countries. Thus, my first hypothesis is as follows:

H1: There is an increase in cross-country accounting comparability after mandatory IFRS adoption.

While cross-country accounting comparability is expected to increase with IFRS adoption, the impact of IFRS adoption on within-country comparability is likely to be conditional on the flexibility of the pre-IFRS local standards relative to IFRS if firms' reporting incentives and the enforcement mechanisms stay the same after the adoption.

Flexibility can result from alternatives in accounting methods allowed by the standard, as well as lack of requirement for, and/or lack of clear guidance on, reporting of an economic phenomenon. If the pre-IFRS local standards are more flexible than IFRS, e.g., they have less clear requirements for, or more alternatives on how to account for intangible assets than IFRS, firms may account for intangible assets in various ways prior to IFRS adoption and IFRS adoption will likely lead to increased comparability within the country.

On the other hand, if the pre-IFRS standards offer less flexibility than IFRS, adoption of IFRS might lead to lower within-country comparability. However, within-country comparability might stay the same even if IFRS allows more alternatives, because firms might stay with their pre-existing accounting method if that method is also

allowed under IFRS. Following this discussion, my second hypothesis is as follows:

H2: Changes in within-country accounting comparability following mandatory IFRS adoption are conditional on the flexibility of the pre-IFRS local accounting standards relative to IFRS.

IFRS adoption is likely to decrease representational faithfulness for firms in countries with high-quality local GAAP prior to IFRS adoption and vice versa for firms in countries with low quality pre-IFRS accounting standards. For example, if the U.K. GAAP is higher quality than IFRS and the German GAAP is lower quality than IFRS, when both countries adopt IFRS, the financial reporting quality for the U.K. firms will decrease, and the financial reporting quality for the German firms will increase.

Alternatively, local GAAPs might be more faithfully representative of the underlying economic phenomena than IFRS because local GAAPs have evolved to fit their unique cultural and economic environments. Thus, the impact of IFRS adoption on representational faithfulness is an empirical question. Following this discussion, my third hypothesis is:

H3. Changes in representational faithfulness following mandatory IFRS adoption are conditional on the quality of the pre-IFRS local accounting standards relative to IFRS.

The goal of the IASB is to promote a single set of accounting standards to increase both cross-country accounting comparability and quality. With IFRS adoption, while firms across countries experience increases in cross-country comparability, some countries' accounting quality might decrease and some might increase depending on the quality of the pre-IFRS local standards compared with that of IFRS. Thus, there might be

a trade-off between improvement in accounting comparability and decreases in representational faithfulness for firms in countries with higher quality pre-IFRS local standards. Thus, my last hypothesis is as follows:

H4: The trade-off between cross-country accounting comparability and representational faithfulness is conditional on the quality of the pre-IFRS local accounting standards relative to IFRS.

CHAPTER 4

PROXY CONSTRCTION AND CONSTRUCT VALIDITY TEST

At a conceptual level, accounting comparability refers to the concept wherein firms apply the same accounting methods to the same or similar economic events or transactions. Following prior literature (Cascino & Gassen, 2009; Joos & Lang,1994; Land & Lang, 2002), I derive my proxy for comparability from return on equity (ROE). Different from prior studies, however, I do not assume that convergence in the magnitude of ROE implies comparability in accounting practices. Instead, I propose that if two firms have comparable accounting practices, the difference in the magnitude of their ROE will more likely be explained by the differences in their economic performance than if the two firms have noncomparable accounting practice

Accounting Comparability Proxies (*CCAC* and *WCAC*)

ROE is a function of the economic performance of the firm, its accounting choices, and a random component:

$$ROE_{it} = \beta_{0i} + \beta_1 EconomicTransactions_{it} + \beta_2 AccountingChoices_{it} + \varepsilon_{it} \quad (1)$$

Since I am interested in estimating the proxy for accounting choices, I control for

the impact of economic transactions on *ROE*, and the residual term of the equation is my proxy for accounting choices.

To calculate comparability, I first calculate the difference in *ROE* between firm *i* and firm *m,* where firm *i and m* are in the same industry, same year, and with the same fiscal year end, but headquartered in different countries:

$$ROE_{imt} = ROE_{it} - ROE_{mt} \quad (2)$$

where ROE_{imt} stands for difference in ROE between firm *i* and its matched firm *m* from the same industry but different country, and ROE_{it} and ROE_{mt} stand for *ROE* of firm *i* and its matched firm *m,* respectively.

Next, I tease out the effect of the underlying economics on the difference in the matched firms' return on equity, ROE_{imt}. I choose four variables that have been used in the prior literature as the primary drivers of economic performance: gross domestic products per capita (*GDP*), market return (*RET*), past year's market return (*LRET*), and market value of equity (*MVE*). I use difference in country GDP per capita to tease out the impact of economy wide growth/contraction on *ROE*. I use *RET*, *LRET*, and *MVE* to proxy for firm performance and other characteristics including economic risks (Sloan, 1996). After controlling for differences in economy, industry, and firm level performance and characteristics, the differences in *ROE* between two similar firms reflect differences in accounting choices. Specifically, I run the following regression by firm-year:

$$ROE_{imt} = \beta_{0it} + \beta_1 GDP_{imt} + \beta_2 RET_{imt} + \beta_3 LRET_{imt} + \beta_4 MVE_{imt} + \varepsilon_{it} \quad (3)$$

where GDP_{imt} stands for differences in annual *GDP* per capita between countries where firm *i* and its matched firm reside. RET_{imt} is calculated as the difference in the firm level annual returns, $LRET_{imt}$ is the difference in the firm level lagged annual returns, and MVE_{imt} is the difference in log of market value of equity between the two firms. My first firm-year measure of cross-country accounting comparability (*CCAC1*) is -1 times the absolute value of the firm-year average of the residual term, ε_{it}. My second measure of cross-country comparability for firm *i (CCAC2)* in year *t* is -1 times the standard deviation of the firm-year residual term for the year. Larger values of *CCAC1* and *CCAC2* indicate higher accounting comparability.

To calculate within country accounting comparability (*WCAC*), I replace ROE_{mt} in Eq. (2) with matched firms from the same industry, same year, same fiscal year end, and same country. I then re-estimate regression (3) without GDP_{imt}. *WCAC1* and *WCAC2* are calculated the same way as *CCAC1* and *CCAC2*, respectively.

Representational Faithfulness Proxy (*AQ*)

I use accruals quality to proxy for representational faithfulness. This is because I focus on the representational faithfulness aspect of accounting quality. Representational faithfulness is about a complete, neutral, and free-from-error depiction of the underlying economic phenomena that firms purport to represent (FASB, 2010). Accruals is the mechanism that maps reported earnings (which is a combination of the underlying economics and accounting methods) into cash flows (which is the underlying economics), thus reflecting the degree of faithful representation of the accounting methods of the firm.

Consistent with prior studies (Ahmed et al., 2010; Chen et al., 2008; Francis, LaFond, Olsson, & Schipper, 2005), I use the following cross-sectional modified Dechow and Dichev (McNichols, 2002) model to estimate accruals quality:

$$TCA_{it} = \beta_{0i} + \beta_{1i}CFO_{it-1} + \beta_{2i}CFO_{it} + \beta_{3i}CFO_{it+1} + \beta_{4i}\Delta REV_{it} + \beta_{5i}PPE_{it} + \upsilon_{it} \quad (4)$$

where TCA_{it} is total current working capital accruals and is calculated as $\Delta CA_{it} - \Delta CL_{it} - \Delta CASH_{it} + \Delta STD_{it}$ in year *t* for firm *i*. ΔCA_{it}, ΔCL_{it}, $\Delta CASH_{it}$, and ΔSTD_{it} are changes in current assets (wc02201), current liabilities (wc03101), cash (wc02001), and short term debt (wc03051) between year *t-1* and year *t*, respectively. CFO_{it} is firm *i*'s cash flows from operations (wc04860) in year *t*. ΔREV_{it} is firm *i*'s change in revenues (wc01001) between year *t-1* and year *t*, and PPE_{it} is firm *i*'s gross value of property, plant, and equipment (wc02301) in year *t*. All these variables are scaled by average total assets. υ_{it} is the classic error term. I measure accruals quality as -1 times the absolute value of the one-year residual term (υ_{it}) from the model (Demerjian, Lewis, Lev, & McVay, 2010). Larger values of *AQ* indicate higher accruals

I do not calculate accruals quality (*AQ*) as the standard deviation of the residuals from year *t-4* to *t* because doing so would require more time-series data than are available, and because doing so would result in *AQ* being calculated across the local (before 2004) and IFRS (from 2005) accounting regimes. I acknowledge that *AQ* for 2004 and 2005 still suffer the two-accounting regime problem in that, CFO_{it+1} for 2004 is recorded under IFRS, while CFO_{it-1} for 2005 is recorded under local standards. I do keep

observations for these 2 years because of low data availability. The resulting measurement error would only bias against finding the desirable results.

Pre-IFRS Local GAAP Flexibility and Quality Proxies (*PreF and PreAQ)*

Hypotheses 2 and 3 posit that changes in within-country comparability and accounting quality following the IFRS adoption are conditional on the flexibility (*PreF*) and quality (*PreAQ*) of the local accounting standards relative to those of IFRS. Flexibility refers to the extent of legitimate alternatives the set of accounting standards allows and other alternatives resulting from no requirement for, or lack of clear guidance on, financial reporting. Quality of local accounting standards is the extent of representational faithfulness of the local accounting standards relative to IFRS.

Pre-IFRS Local GAAP Flexibility Proxy (*PreF*)

PreF is derived from the Bae, Tan, and Welker (2008) study which examines the impact of international GAAP differences on foreign analysts. The authors first identify a list of 21 important accounting rules based on a review of the past literature, and then measure the differences between local GAAPs in each of the 21 accounting rules. I measure *PreF* based on the differences between local GAAPs and IFRS in the 21 rules as coded by Bae et al[5]. A country is given 1 point if its local standard is different from IFRS in one of the rules. *PreF* is the total points a country received. *PreF* ranges from 0 to 21. Table 1, column (4) presents the scoring information for countries selected for this study

[5] Most of the differences between local GAAPs and IFRS in these 21 accounting rules are differences in requirement for a specific accounting item. For example, IFRS has clear guidance and requirement on how to account for segment reporting, but a local GAAP does not.

Table 1

Quality and Flexibility Proxies of Local Accounting Standards Relative to IFRS

Country	*IFRSAQ (1)*	*CPreAQ (2)*	*PreAQ (3)*	*PreF (4)*
Argentina	-0.038	-0.059	0	14
Australia	-0.038	-0.045	0	4
Belgium	-0.038	-0.032	1	13
Brazil	-0.038	-0.010	1	11
Canada	-0.038	-0.034	1	5
China	-0.038	-0.052	0	9
Denmark	-0.038	-0.040	0	11
Finland	-0.038	-0.034	1	15
France	-0.038	-0.027	1	12
Germany	-0.038	-0.044	0	11
Greece	-0.038	-0.037	1	17
India	-0.038	-0.080	0	8
Ireland	-0.038	-0.031	1	1
Japan	-0.038	-0.017	1	9
Korea (South)	-0.038	-0.033	1	6
Malaysia	-0.038	-0.052	0	8
Mexico	-0.038	-0.015	1	1
Netherlands	-0.038	-0.035	1	4
Norway	-0.038	-0.037	1	7
Pakistan	-0.038	-0.022	1	4
Philippines	-0.038	-0.030	1	10
Portugal	-0.038	-0.028	1	13
Singapore	-0.038	-0.033	1	0
Sri Lanka	-0.038	-0.005	1	0
Sweden	-0.038	-0.033	1	10
Switzerland	-0.038	-0.036	1	12
Thailand	-0.038	-0.116	0	4
United Kingdom	-0.038	-0.028	1	1
United States	-0.038	-0.026	1	4
Average	-0.04	-0.04	0.72	7.72

Note: This table presents the scoring information for *PreAQ*. *IFRSAQ* is the average *AQ* for all IFRS firms in the postadoption period, and *CPreAQ* is the average *AQ* for a specific country. *PreAQ* is coded 1 if *CPreAQ* is greater than *IFRSAQ*, and 0 otherwise. *PreF* is the flexibility of local standards derived from the Bae et al. (2008) study.

There are a few limitations for *PreF*. First, the 21 accounting rules may not capture all important aspects of accounting standards. Second, the measurement is based on differences in the rules between local standards and IFRS at the end of 2001. It does not take into consideration the rules coming into effect between 2001 and 2004. Finally, by construction, *PreF* captures the degree of flexibility of local standards relative to IFRS. This means all local standards examined are either equally flexible as IFRS or more flexible than IFRS, but no local standards can be less flexible than IFRS. As discussed in the hypothesis development section pertaining to hypothesis 2, some local standards might be less flexible than IFRS and changes in within-country comparability after the adoption might be different for this group than for the group that is more flexible than IFRS. Due to this limitation of the proxy construction, I am not able to investigate how countries with less flexible local standards would react to the adoption in terms of within-country comparability. However, this might not be a big concern because these 21 accounting rules were rules that were actually in practice before countries adopted IFRS, which suggest that all local standards are indeed likely to be more flexible than IFRS.

Pre-IFRS Local GAAP Quality Proxy (*PreAQ)*

I develop *PreAQ*, which is derived on the difference between the country level accounting quality in the pre-IFRS period and the average IFRS accounting quality in the postadoption period, as the proxy for pre-IFRS local accounting standards quality. Specifically, I first calculate the average *AQ* for each country over the preadoption period (*CPreAQ*). Next, I calculate the average *AQ* for all IFRS firms in the post-IFRS period (*IFRSAQ*). *PreAQ* is coded 1 if *CPreAQ* is greater than *IFRSAQ*, and 0 otherwise. The

advantage of this measure is that it is estimated relative to IFRS, but the disadvantage of it is that it is derived internally, which might impose endogeneity concern. To tease out this concern, I utilize a second proxy for the quality of local accounting standards in the sensitivity analysis chapter. Columns (1) to (3) of Table 1 present the scoring information for *PreAQ*.

Justification and Construct Validity Test of the Accounting Comparability Proxies (*CCAC1* and *CCAC2*)

There are existing measures of accounting comparability and earnings comparability measures (De Franco et al., 2011; Lang et al., 2010) in the prior literature. With the accounting comparability measure, De Franco et al. (2011) regress the ratio of earning to market value of equity (E/P) on annual returns using quarterly data, and use the intercept and coefficient on returns as the proxy for accounting choices. Similarly, Lang et al. (2010) regress E/P on annual returns using annual data and take the intercept and coefficient on returns as the proxy for accounting choices. They then take the difference in the intercept and coefficient between two matched firms, after controlling for returns, as the proxy for comparability.

Two potential concerns with these measures are as follows: First, they do not necessarily measure accounting comparability. The relation between E/P and returns is impacted by accounting quality, risk, and other nonaccounting factors such as information availability. Thus, comparing differences across firms in the relation between returns and E/P does not necessarily test accounting comparability. That is, a similar

mapping between returns and E/P can exist across firms that have noncomparable accounting choices but are similar in terms of accounting quality, risk, and other factors that affect the relationship between returns and E/P. Second, the Lang et al. (2010) accounting comparability measure does not control for difference in country GDP per capita, thus suffering from correlated omitted variable issue.

In addition to the above two concerns, the De Franco et al. measures require time series quarterly data to estimate, which are not available in the international setting, thus limiting the application of these measures in my study. Although Lang et al. (2010) utilize annual data to modify the De Franco et al. measures to meet the need of their study, the comparability proxies they developed with international annual data display different properties than the De Franco et al. measures did in the U.S. market. This phenomenon brings about limitations for the application of the De Franco measures in an international setting, and also concerns about the ability of the De Franco et al. and the Lang et al. measures to capture the underlying constructs.

With the earnings comparability measure, the original De Franco et al. (2011) measure is the adjusted-R^2 from regression of $firm_i$'s E/P on $firm_j$'s E/P, where $firm_j$ is in the same industry as $firm_i$. Their argument is that if two firms are comparable, their earnings are more likely correlated and their accounting choices are more likely to be similar, too. The issue with this measure is that the comovement between two firms' earnings measures the combined effect of the true economics and the accounting practices because reported earnings is a function of these two factors. Therefore, the adjusted-R^2 captures the impact of both earnings comparability and accounting comparability, and thus, it is not a precise proxy for accounting comparability.

My measure of comparability attempts to control for differences across firms in terms of economic performance and other related factors and then attributes any remaining difference between a firm's ROE as stemming from reduced comparability of accounting methods. The benefit of my metric is that it uses the residual term instead of the coefficient, intercept, or adjusted-R^2, which capture mixed effects of many factors.

Construct Validity Analysis of Accounting Comparability Measures

In this section of the thesis I perform empirical analyses to examine how well my accounting comparability measures, *CCAC1* and *CCAC2*, capture the underlying construct. The ideal environment for this analysis is a setting where all else equal, the only things that change are the accounting standards. I use financial reports for foreign firms cross-listed in the U.S. in 2004 for this purpose. Foreign firms cross-listed in the U.S. were required to file 20-F under their local GAAPs for 2004. If these firms adopted IFRS in 2005, they filed 20-F for 2005 under IFRS. In addition, they had to provide comparable financial data under IFRS for 2004 as well. Thus, 2004 is the year when cross-listed foreign firms have two sets of financial reports: one set under local GAAP and one set under IFRS. If my accounting comparability measures indeed capture the underlying construct, I should observe an increase in accounting comparability estimated under IFRS than under local GAAP for the firms cross-listed in 2004 (the improvement test). In addition to this comparability improvement test, I examine whether these two comparability proxies are associated with the flexibility proxy, *PreF*, because if these two comparability proxies capture their underlying construct, they should be associated with

other measures associated with comparability such as *PreF* (the association test).

Construct Validity Test of *CCAC1* and *CCAC2*

The first test I perform is to estimate *CCAC1* and *CCAC2* using 2004 data under IFRS and local GAAPs, respectively. I hand collect financial reporting data for 20 foreign firms from various countries that are cross-listed in the New York Stock Exchange in 2004, and that adopted IFRS in 2005. I then estimate *CCAC1* and *CCAC2* as I did earlier in this chapter except that I relax the requirement of industry match due to data limitation. I expect to see that *CCAC1* and *CCAC2* estimated under IFRS are greater in magnitude than *CCAC1* and *CCAC2* estimated under local GAAPs, which means improvement in comparability when firms prepare financial statements under a single set of accounting standards than under various local standards. I perform the test using both the mean and median values for *CCAC1* and *CCAC2*, because the mean is sensitive to the influence of extreme values while the median is not.

Table 2, Panel A presents the results for the test. When using the mean values for the test, *CCAC1* has no significant improvement when estimated under IFRS than under the local standard, but *CCAC2* has significant improvement (0.008). The results are different when using the median values for the test: the improvement for both *CCAC1* and *CCAC2* is significant.

The second test I perform is to examine the correlation of *CCAC1* and *CCAC2* with *PreF*, flexibility of local standards. If *CCAC1* and *CCAC2* indeed capture accounting comparability, they should be negatively associated with *PreF*. Table 2, Panel

Table 2

Construct Validity Test of Accounting Comparability Proxies

Panel A: Improvement Test								
Variable	Local Standards		IFRS		Improvement			
	Mean	Median	Mean	Median	Mean		Median	
CCAC1	0.000	0.000	0.000	0.000	0.000		0.000	***
CCAC2	-0.113	-0.121	-0.105	-0.113	0.008	***	0.008	***

Panel B: Association Test			
Variable	*PreF*	*CCAC1*	*CCAC2*
PreF			
CCAC1	*-0.449*		
CCAC2	**-0.511**	0.093	

Note: Table 2 presents the results of various construct validity tests. All variables are defined in the Appendix. Panel A reports results for the improvement test while Panel B reports the results for the Spearman correlation test. For Panel A, *** and ** indicate significant level at 0.01 and 0.05, respectively. For Panel B, bold and italicized numbers are significant at 0.01, bold numbers are significant at 0.05, and italicized numbers are significant at 0.1 level, respectively.

B indicates that these two comparability measures are indeed negatively associated with *PreF*.

In summary, the empirical evidence in Table 2, Panels A and B, regarding *CCAC1* and *CCAC2*, suggest that *CCAC2* behaves consistently with my expectation, suggesting that it is a good proxy for accounting comparability. Although *CCAC1* only passes the improvement test when using the median value, I still consider it to be a reasonable proxy for comparability.

CHAPTER 5

RESEARCH DESIGN

Pre- and Post-IFRS Accounting Comparability and Quality Analysis

I focus on countries that adopted IFRS in 2005 to simplify the research design. I utilize a balanced time period for the before- (year 2000 to year 2004) and the after-adoption year (year 2005 to year 2009) for various tests. I estimate *CCAC, WCAC,* and *AQ* for each firm-year over the 10 year period. I utilize matched control samples (firms that never used IFRS) to tease out the possible confounding effects of any time trends that are independent of IFRS adoption (Lang et al., 2010).

Following Lang et al. (2010), I compile the control sample group using a one-to-one "greedy" matching algorithm. This procedure yields a group of non-IFRS adopter firms that are closely related to the treatment group along several firm-level (returns and market value of equity) and country-level (GDP per capita) economic dimensions. I also control for industry effect by matching firms in the same industry. For both the control and the treatment (IFRS adopters) firms, I estimate *CCAC, WCAC,* and *AQ* for each firm-year for the 10 year period.

As a first step to test my hypotheses, I conduct a firm level difference-in-difference test to examine changes in *CCAC, WCAC,* and *AQ* in the pre- and post-IFRS

periods for the treatment as well as the control samples. Next, I utilize pooled multivariate regression analysis to examine the effects of IFRS adoption on *CCAC*, *WCAC*, and *AQ*. All regression models are country and industry fixed effects models to control for country and industry effects that might affect comparability and representational faithfulness.

Test of Hypothesis 1

Hypothesis 1 states that all adopters experience increases in cross-country accounting comparability after the adoption. I estimate the following equation to test H1:

$$CCAC_{it} = \beta_0 + \beta_1 IFRS_i + \beta_2 POST_t + \beta_3 IFRS_i * POST_t + \varepsilon_{it} \quad (5)$$

where $IFRS_i$ is an indicator variable that equals 1 if firm *i* is a mandatory IFRS adopter, and 0 otherwise. $POST_t$ is an indicator variable that equals 1 if the observation is in the post-IFRS period, and 0 otherwise. The hypothesis test focuses on the sign and significance of β_3. A significantly positive β_3 indicates that the dependent variable increases incrementally more for the adopters than the nonadopters in the post-IFRS period.

Test of Hypothesis 2

Hypothesis 2 posits that changes in within-country comparability are conditional on the flexibility of the local accounting standards relative to IFRS. The following equation tests H2:

$$WCAC_{it} = \beta_0 + \beta_1 IFRS_i + \beta_2 POST_t + \beta_3 PreF_i + \beta_4 IFRS_i*POST_t + \beta_5 PreF_i*IFRS_t + \beta_6 PreF_i*POST_t + \beta_7 PreF_i*IFRS_i*POST_t + \varepsilon_{it} \quad (6)$$

where all variables are defined as before and as in the Appendix. A significantly positive β_4 indicates that the within-country comparability increases incrementally more for adopters than nonadopters following the adoption, and a significantly positive β_7 indicates that changes in within-country comparability for adopters after the adoption is positively associated with the degree of the flexibility of the local standards relative to IFRS. The higher the flexibility of the local standards, the more increases in within-country comparability following the adoption.

Test of Hypothesis 3

Hypothesis 3 states that changes in representational faithfulness following IFRS adoption are conditional on the quality of the pre-IFRS local accounting standards. To test the hypothesis, I start with running the following analysis:

$$AQ_{it} = \beta_0 + \beta_1 IFRS_i + \beta_2 POST_t + \beta_3 PreAQ_i + \beta_4 IFRS_i*POST_t + \beta_5 PreAQ_i*IFRS_t + \beta_6 PreAQ_i*POST_t + \beta_7 PreAQ_i*IFRS_i*POST_t + \varepsilon_{it} \quad (7)$$

where *PreAQ* is an indicator variable as defined in Chapter 4. All other variables are calculated as in the Appendix. A significantly negative β_4 suggests that accounting quality decreases more for adopters than nonadopters after the adoption. A significant β_7

indicates that changes in accounting quality for the adopters following IFRS adoption are conditional on the quality of the pre-IFRS local accounting standards.

Although a significant β_7 suggests that changes in accounting quality for the adopters following IFRS adoption are conditional on the quality of the pre-IFRS local accounting standards relative to IFRS, it does not indicate whether the changes for the two types of firms are in the same or different direction. To further explore how *PreAQ* affects changes in accounting quality, I partition the sample into two groups (high and low) based on *PreAQ* and estimate the following equation to explore how *PreAQ* impact changes in quality with the adoption:

$$AQ_{it} = \beta_0 + \beta_1 IFRS_i + \beta_2 POST_t + \beta_3 IFRS_i * POST_t + \varepsilon_{it} \quad (7.1)$$

According to H3, for firms in countries in the high (low) *PreAQ* group, the expected sign on β_3 is negative (positive), because firms with higher (low) *PreAQ* are expected to experience decreases (increases) in quality. Nevertheless, accounting quality may stay the same after the adoption if the country's *PreAQ* is the same as the IFRS quality, as discussed in the corresponding hypothesis development section.

Trade-Off Between Accounting Comparability and Representational Faithfulness Analysis

Tests for H1 and H3 provide preliminary evidence on the potential trade-off between changes in cross-country accounting comparability and representational faithfulness, but the tests are done in different samples. To better examine the trade-off, I

compose a sample (the trade-off sample) based on the availability of data needed to calculate *CCAC* and *AQ*, and do the trade-off analysis within this sample. First, I conduct a firm level difference-in-difference test to examine changes in *CCAC* and *AQ* before, versus after, the adoption. Next, I estimate the next two equations to see if on average, IFRS adopters experience increased cross-country comparability but decreased representational faithfulness following the adoption and whether changes in representational faithfulness are conditional on the quality of the local accounting standards relative to IFRS:

$$CCAC_{it} = \beta_0 + \beta_1 POST_t + \varepsilon_{it} \quad (8)$$

$$AQ_{it} = \beta_0 + \beta_1 POST_t + \beta_2 PreAQ_i + \beta_3 PreAQ_i * POST_t + \varepsilon_{it} \quad (9)$$

Finally, to take a closer look at whether the trade-off between accounting comparability and representational faithfulness exists in all firms, I partition firms into two groups according to their *PreAQ*. A firm is classified as high in terms of quality if its *PreAQ* is 1, and is classified as low if its *PreAQ* is 0. I then estimate equation (8) and the following equation within each group to examine whether there is any pattern in terms of changes in β_1 with each equation:

$$AQ_{it} = \beta_0 + \beta_1 POST_t + \varepsilon_{it} \quad (10)$$

For both the high and low *PreAQ* sample, I expect to see a positive β_1 for equation (8), which suggests cross-country comparability improvement for all adopters.

With equation (10), I expect a negative β_1 for the high *PreAQ* group and a positive $\beta_1$for the low *PreAQ* group.

The Link Between Improvement in Comparability and Reduction in Representational Faithfulness

The analyses in the previous section provide evidence whether there is a trade-off between improvement in comparability and reduction in representational faithfulness, but they do not provide insights on whether there is a link between improvement in comparability and reduction in representational faithfulness. Therefore, I perform three more analyses to examine whether firms with the most improvement in comparability experience the most reduction in representational faithfulness to further explore the trade-off between the two properties of accounting practice observed in the previous section of this chapter.

It is difficult to predict whether there is a systematic relationship between improvement in comparability and reduction in representational faithfulness because two firms can achieve comparable accounting practices with either high or low representational faithfulness. That is, when two firms utilize identical and highly representationally faithful accounting methods, they achieve high comparability and high representational faithfulness. On the other hand, these two firms can also utilize identical but low representationally faithfulness accounting methods, resulting in low representational faithfulness but still high comparability. Nevertheless, I explore the relationship between changes in comparability and representational faithfulness to better understand the interaction between them.

First, I study the correlation between changes in comparability and changes in representational faithfulness with IFRS adoption (the correlation test). Specifically, I calculate changes in firm level *AQ* (*AQ_Diff*), *CCAC1* (*CCAC1_Diff*), and *CCAC2* (*CCAC2_Diff*) with the adoption, and examine the association among them. Second, I rank the firms into high and low, two groups according to *AQ_Diff, CCAC1_Diff* and *CCAC2_Diff,* and examine the relationship among them (the rank test).

Finally, I run multivariate regression analysis to analyze the relationship between *AQ* and *CCAC* to explore if there is a systematic relationship between them. Specifically, I estimate the following model:

$$AQ_{it} = \beta_0 + \beta_1 POST_t + \beta_2 CCAC_t + \beta_3 CCAC_t * POST_t + \varepsilon_{it} \quad (11)$$

where *CCAC* stands for *CCAC1* and *CCAC2*, respectively, and *CCAC***POST* is the interaction term of *CCAC* and *POST*. All other variables are defined previously. The focus of interest is β_2 and β_3. Since there might not be any systematic relationship between *AQ* and *CCAC*, I do not make any prediction on the sign of the two coefficients.

CHAPTER 6

DATA AND SAMPLE SELECTION AND DESCRIPTIVE STATISTICS

I obtain all financial statement data items from WorldScope, which is part of the DataStream database. I start by taking all equity securities that are primary quotes (home country listed securities) to ensure that no cross-listed firms are included. I also restrict my data to major-class securities if a firm has multiclass securities issued. Next, I eliminate duplicate entries and observations that are of the same name but different characteristics (such as exchanges) to ensure that the same firm will not be entered more than once. I build a list of all the securities that are left and use this list to download data items needed for the period of 1990 to 2009, which generates 1,094,500 observations.

I eliminate observations with missing values of accounting standards followed (wc07536), fiscal year end (wc05350), and country of domicile (wc02606). Then, I eliminate firms whose primary exchange of their major security is not located in their home country, which leaves 475,318 observations across 127 exchanges and 73 countries. Next, I classify firms into U.S. GAAP, local standards, and IFRS groups following Daske, Hail, Leuz, and Verdi (2008) and eliminate those where I cannot determine the mandatory IFRS adoption date from www.iasplus.com. To capture the effect of

mandatory IFRS adoption on accounting comparability and representational faithfulness, I eliminate voluntary IFRS adopters, leaving 474,084 observations.

Since I am primarily interested in changes in comparability and representational faithfulness resulting from the mandatory switch from local accounting standards to IFRS, I eliminate observations where non-U.S. firms had previously adopted U.S. GAAP before the mandatory adoption date, which leaves 442,525 observations. For countries that adopted IFRS mandatorily, there are occasions where the accounting standards followed are reported as local standards instead of IFRS in the post-IFRS period. Since I am not able to identify whether these are coding errors or exceptions to IFRS adoption, I delete those observations from my sample, leaving 386,963 observations. I eliminate firms where no GDP data are available (such as all Taiwanese firms), which leaves 371,952 observations. Finally, I delete observations with negative values of sales, assets, common equity, cash, current assets, current liabilities, property, plant, and equipment, market capitalization, and dividend. This procedure generates the generic sample of 156,224 observations, which are composed of two exclusive groups of firms: those that mandated IFRS adoption in 2005, and those that have never adopted IFRS.

To construct the pre- and post-IFRS comparability and quality treatment samples, I start with the generic sample, keep firms that adopted IFRS in 2005 as well as those that never adopted IFRS, and delete observations prior to 1998, leaving 107,263 observations with 14,045 for adopters and 93,218 for nonadopters. I delete observations where adopters did not use local standards for the entire pre-IFRS period, and IFRS for the entire post-IFRS period, which leaves 107,129 observations with 13,911 for adopters and 93,218 for nonadopters. All the comparability and accruals quality treatment and control

samples are generated from these observations.

To construct the cross-country comparability treatment sample, I start with the 13,911 adopter observations. Using this sample, I calculate *ROE*, *RET*, *LRET*, and eliminate missing values for *ROE*, *RET*, *LRET*, sales, asset, common equity, fiscal year-end price, and market capitalization. This procedure generates 7,333 observations for adopters. Next, I calculate the differences in ROE (ROE_{imt}), GDP per capita (GDP_{imt}), return (RET_{imt}), lagged return ($LRET_{imt}$) and market value of equity (MVE_{imt}) between firms from different countries, but matched by industry, year, and fiscal year end. I delete missing values for each of these variables, and truncate the data by the country-year top and bottom 1%. I then estimate cross-country accounting comparability as described in Chapter 4. I eliminate missing values for *CCAC1*, *CCAC2*, and truncate the data by the country-year top and bottom 1%. This procedure leaves 6,105 observations. To ensure the comparability of the samples before and after adoption, I require firms to appear in both the pre- and post-IFRS adoption periods. The final sample is 4,659 observations with 739 firms across 14 countries.

The sample for estimating within-country accounting comparability is constructed the same way except that ROE_{imt}, MVE_{imt}, $RET_{imt,}$ and $LRET_{imt}$ are calculated for matched firms from the same country. The final sample size is 3,781 observations with 641 firms across 13 countries. The sample for quality assessment and the pre- and post-IFRS tradeoff analysis are constructed in a similar way as the comparability samples. The final sample for accruals quality is 3,973 observations with 670 firms across 15 countries. The final sample for the trade-off analysis is 3,422 observations with 591 firms across 13 countries.

To form the corresponding control samples for the various treatment samples, I start with the 93,218 nonadopter observations and the 14,045 adopter observations. I calculate average *GDP* per capita, *RET*, *LRET*, and *MVE* for each control and treatment firm over the years available, which are needed for calculating propensity scores to perform the one-to-one greedy matching algorithm. I randomly select 1,000 firms from Japan and the U.S. to ensure that no country is overly represented before I perform the one-to-one greedy matching algorithm. I further require that the matched control firm is from the same industry as the treatment firm. I estimate *CCAC, WCAC*, and *AQ* as I did with the treatment samples. Due to data limitations, the trade-off treatment sample has no matched control sample.

Descriptive Statistics

Tables 3 to 6 provide descriptive statistics for the four treatment, as well as the three control, samples. For each table, Panel A shows the country distribution for the adopter and nonadopter firms, Panel B provides mean and median estimation, and Panel C is the correlation matrix. Because of sample selection criteria, the adopter countries are primarily EU countries, while the nonadopters come from a wider range of developed and emerging countries. In Table 3, Panel B, the adopter and nonadopter firms are quite similar in terms of *RET, LRET,* and *MVE*, which are the economic indicators used in deriving accounting comparability proxies *CCAC1* and *CCAC2* and in matching control firms to treatment firms. It should be noted that the adopter firms have much higher *ROE* than the nonadopter firms (14.46% vs. 10.57%), which may suggest differences in accounting practices across the two samples.

Table 3, Panel C provides the Spearman correlation matrix for the adopter and nonadopter samples. The low positive correlation between *CCAC1* and *CCAC2* suggests that either these proxies capture somewhat different underlying constructs, or one of the proxies (*CCAC1*) is weaker than the other (*CCAC2*). The later explanation is consistent with the fact that *CCAC2* is usually highly significant while *CCAC1* is weakly significant.

Table 4 provides descriptive statistics for the within-country comparability samples. Consistent with the results in Table 3, the nonadopter firms have much higher within-country accounting comparability than the adopters in terms of both *WCAC1* and *WCAC2*. This may be suggestive of the fact that IFRS is a set of principle-based standards relative to the rules-based accounting standards used by the U.S., Japan, and Canada, countries that compose the majority of the nonadopter sample. Firms adopting IFRS may have different interpretation of the standards, leading to low within-country comparability.

Table 5, Panel B reports the descriptive statistics for the representational faithfulness analysis samples. The adopters have slightly larger changes in current assets, current liabilities, cash, short-term debt, and sales (nontabulated), variables used to calculate representational faithfulness (*AQ*), than the nonadopters. It is therefore, not surprising to observe that adopters have, on average, a slightly lower *AQ* (mean of -0.04) than the nonadopters (mean of -0.03), although the median *AQ* (-0.02) for the two samples is very similar.

Table 6 displays the descriptive statistics for the trade-off analysis sample. They are similar to those of the treatment samples for the cross-country and representational faithfulness analyses. It should be noted that accounting comparability proxies (*CCAC1*

and *CCAC2*) and *AQ* have significantly positive but low correlations, which is consistent with the notion that comparability and representational faithfulness are different qualitative characteristics of useful financial information.

Table 3

Descriptive Statistics for the Cross-Country Accounting Comparability Sample

Panel A - Country Breakdown

Adopters					Nonadopters				
Country	# Firm	Percent	Frequency	Percent	Country	# Firm	Percent	Frequency	Percent
AUSTRALIA	35	4,74	214	4.59	BRAZIL	1	0.18	3	0.09
BELGIUM	22	2.98	144	3.09	CANADA	101	18.5	564	17.82
DENMARK	36	4.87	222	4.76	CHINA	13	2.38	59	1.86
FINLAND	61	8.25	419	8.99	INDIA	6	1.1	40	1.26
FRANCE	168	22.73	1014	21.76	INDONESIA	10	1.83	45	1.42
GERMANY	61	8.25	364	7.81	JAPAN	106	19.41	595	18.8
GREECE	14	1.89	68	1.46	KOREA (SOUTH)	30	5.49	157	4.96
IRELAND	13	1.76	91	1.95	MALAYSIA	7	1.28	41	1.3
NETHERLANDS	57	7.71	408	8.76	MEXICO	6	1.1	42	1.33
POLAND	12	1.62	52	1.12	PAKISTAN	1	0.18	3	0.09
PORTUGAL	14	1.89	80	1.72	SINGAPORE	110	20.15	655	20.7
SWEDEN	87	11.77	544	11.68	THAILAND	6	1.1	41	1.3
SWITZERLAND	18	2.44	113	2.43	UNITED STATES	149	27.29	920	29.07
UNITED KINGDOM	141	19.08	926	19.88					
Total	739	100	4,659	100	Total	546	100	3,165	100

Note: Table 3, Panel A presents the country distribution of the adopter and nonadopter observations that have sufficient data to calculate *CCAC1* and *CCAC2* and other variables used in Eq. (5).

Table 3 continued

Panel B - Descriptive Statistics

Adopters

Variable	N	Mean	Std	Min	P25	Median	P75	Max
CCAC1	4659	-10.80	14.35	-309.98	-13.29	-7.11	-3.31	-0.01
CCAC2	4659	-14.66	5.03	-50.68	-17.34	-14.09	-11.09	-0.17
ROE	4659	14.64	20.39	-340.13	7.23	14.29	22.33	258.58
RET	4659	0.24	0.55	-0.95	-0.07	0.20	0.49	5.34
LRET	4659	0.23	0.51	-0.94	-0.08	0.18	0.46	4.15
MVE	4659	13.07	1.97	7.06	11.68	12.93	14.40	18.86

Nonadopters

Variable	N	Mean	Std	Min	P25	Median	P75	Max
CCAC1	3165	-9.61	10.10	-123.33	-12.48	-6.79	-3.22	-0.01
CCAC2	3165	-12.52	6.76	-64.24	-15.68	-11.53	-8.61	-0.02
ROE	3165	10.57	14.78	-128.10	4.02	9.63	17.31	117.43
RET	3165	0.23	0.63	-0.98	-0.12	0.11	0.42	10.56
LRET	3165	0.21	0.61	-0.98	-0.14	0.11	0.40	6.74
MVE	3165	12.60	2.00	7.70	11.03	12.49	14.12	18.38

Table 3, Panel B presents the descriptive statistics for the adopter and nonadopter observations that have sufficient data to calculate *CCAC1* and *CCAC2* and other variables used in Eq. (5). Detailed data definitions are provided in the Appendix.

Table 3 continued

Panel C - Correlation Matrix

Adopters

Variable	*CCAC1*	*CCAC2*	*ROE*	*RET*	*LAGRET*	*MVE*
CCAC1						
CCAC2	***0.044***					
ROE	***-0.054***	***0.043***				
RET	***0.090***	***0.140***	***0.196***			
LRET	**0.035**	***0.063***	***0.320***	***0.070***		
MVE	**-0.044**	***0.083***	***0.287***	***0.074***	***0.047***	

Nonadopters

Variable	*CCAC1*	*CCAC2*	*ROE*	*RET*	*LAGRET*	*MVE*
CCAC1						
CCAC2	***0.049***					
ROE	**-0.038**	-0.021				
RET	0.028	***0.074***	***0.256***			
LRET	*0.029*	0.020	***0.302***	-0.009		
MVE	0.011	0.020	***0.300***	***0.101***	***0.097***	

Table 3, Panel C is the Spearman correlation matrix. Bold and italicized numbers are significant at 0.01, bold numbers are significant at 0.05, and italicized numbers are significant at 0.1level, respectively.

Table 4

Descriptive Statistics for the Within-Country Accounting Comparability Sample

Panel A – Country Breakdown									
Adopters					Nonadopters				
Country	# Firm	Percent	Frequency	Percent	Country	# Firm	Percent	Frequency	Percent
AUSTRALIA	23	3.59	139	3.68	BRAZIL	2	0.33	10	0.27
BELGIUM	9	1.4	50	1.32	CANADA	94	15.69	530	14.38
DENMARK	26	4.06	141	3.73	CHINA	6	1	24	0.65
FINLAND	48	7.49	301	7.96	INDIA	1	0.17	6	0.16
FRANCE	157	24.49	916	24.23	INDONESIA	3	0.50	20	0.54
GERMANY	47	7.33	255	6.74	JAPAN	177	29.55	1168	31.7
GREECE	1	0.16	3	0.08	KOREA (SOUTH)	47	7.85	256	6.95
IRELAND	6	0.94	30	0.79	PAKISTAN	2	0.33	10	0.27
ITALY	3	0.47	6	0.16	SINGAPORE	93	15.53	570	15.47
NETHERLANDS	46	7.18	299	7.91	THAILAND	3	0.50	17	0.46
NORWAY	22	3.43	119	3.15	UNITED STATES	171	28.55	1074	29.15
PHILIPPINES	35	5.46	193	5.1					
POLAND	2	0.31	7	0.19					
PORTUGAL	8	1.25	47	1.24					
SWEDEN	73	11.39	433	11.45					
UNITED KINGDOM	135	21.06	842	22.27					
Total	641	100	3,781	100	Total	599	100	3,685	100

Note: Table 4, Panel A presents the country distribution of the adopter and nonadopter observations that have sufficient data to calculate *WCAC1* and *WCAC2* and other variables used in Eq. (6).

Table 4 continued

Panel B - Descriptive Statistics

Adopters

Variable	N	Mean	Std	Min	P25	Median	P75	Max
WCAC1	3781	-11.55	14.28	-213.08	-14.23	-7.64	-3.54	-0.01
WCAC2	3781	-13.97	11.54	-214.28	-17.43	-11.17	-7.15	0.00
ROE	3781	14.59	19.30	-168.17	7.23	14.16	21.98	227.99
RET	3781	0.25	0.62	-0.92	-0.07	0.21	0.50	16.95
LRET	3781	0.25	0.62	-0.94	-0.06	0.20	0.48	16.95
MVE	3781	13.03	1.98	7.05	11.64	12.90	14.37	18.86

Nonadopters

Variable	N	Mean	Std	Min	P25	Median	P75	Max
WCAC1	3685	-7.61	8.35	-87.37	-9.84	-5.26	-2.36	-0.01
WCAC2	3685	-11.55	8.45	-94.85	-14.56	-9.34	-6.07	0.00
ROE	3685	9.35	14.77	-169.94	3.56	8.44	15.34	114.33
RET	3685	0.20	0.58	-0.92	-0.12	0.11	0.38	7.59
LRET	3685	0.19	0.56	-0.92	-0.13	0.10	0.38	6.60
MVE	3685	13.03	1.96	7.24	11.57	13.10	14.42	19.34

Table 4, Panel B presents the descriptive statistics for the adopter and nonadopter observations that have sufficient data to calculate *WCAC1* and *WCAC2* and other variables used in Eq. (6). Detailed data definitions are provided in the Appendix.

Table 4 continued

Panel C - Correlation Matrix						
Adopters						
Variables	*WCAC1*	*WCAC2*	*ROE*	*RET*	*LRET*	*MVE*
WCAC1						
WCAC2	***0.182***					
ROE	-0.019	-0.023				
RET	***0.073***	***0.102***	***0.186***			
LRET	***0.045***	0.023	*0.317*	*0.075*		
MVE	-0.003	**0.041**	***0.282***	***0.061***	**0.038**	
Nonadopters						
Variables	*WCAC1*	*WCAC2*	*ROE*	*RET*	*LRET*	*MVE*
WCAC1						
WCAC2	***0.526***					
ROE	***-0.045***	***-0.117***				
RET	0.019	**0.039**	***0.255***			
LRET	-0.001	*-0.030*	***0.290***	0.006		
MVE	-0.009	**-0.034**	***0.255***	***0.063***	***0.083***	

Panel C presents the Spearman correlation matrix. Bold and italicized numbers are significant at 0.01, bold numbers are significant at 0.05, and italicized numbers are significant at 0.1 level, respectively.

Table 5

Descriptive Statistics for the Representational Faithfulness Sample

Panel A - Country Breakdown

Adopters					Nonadopters				
Country	# Firm	Percent	Frequency	Percent	Country	# Firm	Percent	Frequency	Percent
AUSTRALIA	29	4.33	170	4.28	ARGENTINA	1	0.18	8	0.23
BELGIUM	18	2.69	110	2.77	BRAZIL	1	0.18	6	0.18
DENMARK	29	4.33	173	4.35	CANADA	70	12.64	447	13.12
FINLAND	53	7.91	337	8.48	CHINA	12	2.17	52	1.53
FRANCE	132	19.7	753	18.95	INDIA	10	1.81	66	1.94
GERMANY	53	7.91	298	7.5	JAPAN	179	32.31	1065	31.26
GREECE	11	1.64	47	1.18	KOREA (SOUTH)	37	6.68	224	6.57
IRELAND	13	1.94	85	2.14	MALAYSIA	4	0.72	27	0.79
NETHERLANDS	51	7.61	339	8.53	MEXICO	3	0.54	23	0.68
NORWAY	31	4.63	179	4.51	PAKISTAN	1	0.18	7	0.21
PHILIPPINES	34	5.07	194	4.88	SINGAPORE	67	12.09	419	12.3
PORTUGAL	11	1.64	61	1.54	SRI LANKA	1	0.18	4	0.12
SWEDEN	74	11.04	443	11.15	THAILAND	5	0.9	23	0.68
SWITZERLAND	16	2.39	94	2.37	UNITED STATES	163	29.42	1036	30.41
UNITED KINGDOM	115	17.16	690	17.37					
Total	670	100	3,973	100	Total	554	100	3,407	100

Note: Table 5, Panel A presents the country distribution of the adopter and nonadopter observations that have sufficient data to calculate *AQ* and other variables used in Eq. (7) and (7.1).

Table 5 continued

Panel B - Descriptive Statistics

Adopters:

Variable	N	Mean	Std	Min	P25	Median	P75	Max
AQ	3973	-0.04	0.05	-1.28	-0.05	-0.02	-0.01	0.00
ΔCA	3973	0.06	0.10	-1.18	0.01	0.05	0.10	1.06
ΔCL	3973	0.04	0.09	-1.02	-0.01	0.04	0.08	0.76
ΔCASH	3973	0.01	0.07	-0.55	-0.01	0.01	0.03	0.68
ΔSTD	3973	0.01	0.06	-0.45	-0.01	0.00	0.03	0.54
ΔREV	3973	0.14	0.29	-9.16	0.04	0.12	0.22	4.60
TCA	3973	0.01	0.06	-1.25	-0.02	0.01	0.03	1.18
MVE	3973	13.14	1.96	7.05	11.76	13.05	14.46	18.86
PPE	3973	0.69	0.44	0.01	0.33	0.64	0.98	3.21

Nonadopters

Variable	N	Mean	Std	Min	P25	Median	P75	Max
AQ	3407	-0.03	0.03	-0.50	-0.04	-0.02	-0.01	0.00
ΔCA	3407	0.03	0.10	-0.75	-0.02	0.02	0.07	1.18
ΔCL	3407	0.01	0.09	-0.76	-0.02	0.01	0.05	1.08
ΔCASH	3407	0.01	0.06	-0.57	-0.01	0.01	0.03	0.78
ΔSTD	3407	-0.01	0.05	-0.68	-0.02	0.00	0.01	0.51
ΔREV	3407	0.09	0.21	-2.38	0.01	0.06	0.16	2.35
TCA	3407	0.01	0.05	-0.62	-0.02	0.01	0.02	0.53
MVE	3407	12.89	2.09	6.88	11.26	12.87	14.38	19.34
PPE	3407	0.75	0.40	0.01	0.45	0.72	1.00	2.77

Table 5, Panel B provides descriptive statistics for the adopter and nonadopter observations that have sufficient data to calculate *AQ* and other variables used in Eq. (7) and (7.1). Detailed data definitions are provided in the Appendix.

Table 5 continued

Panel C - Correlation Matrix

Adopters

Variable	*AQ*	*ΔREV*	*TCA*	*cfo1*	*lagcfo1*	*leadcfo1*	*PPE*	*MVE*
AQ								
ΔREV	***-0.093***							
TCA	0.006	***0.219***						
cfo1	-0.033	***0.236***	***-0.218***					
lagcfo1	***-0.066***	***0.138***	***0.045***	***0.576***				
leadcfo1	*-0.028*	***0.161***	*0.028*	***0.579***	***0.499***			
PPE	**0.033**	***-0.105***	0.010	***0.150***	***0.131***	***0.121***		
MVE	***0.113***	-0.025	***-0.048***	***0.084***	***0.108***	***0.08***	***-0.143***	

Nonadopters

Variable	*AQ*	*ΔREV*	*TCA*	*cfo1*	*lagcfo1*	*leadcfo1*	*PPE*	*MVE*
AQ								
ΔREV	***-0.139***							
TCA	-0.026	***0.199***						
cfo1	***-0.149***	***0.295***	***-0.282***					
lagcfo1	***-0.167***	***0.195***	***0.052***	***0.632***				
leadcfo1	***-0.141***	***0.218***	0.011	***0.618***	***0.548***			
PPE	***0.131***	***-0.096***	***-0.066***	0.024	0.008	0.019		
MVE	***0.056***	***0.080***	-0.008	***0.217***	***0.193***	***0.201***	***-0.074***	

Panel C presents the Spearman correlation matrix. Bold and italicized numbers are significant at 0.01, bold numbers are significant at 0.05, and italicized umbers are significant at 0.1 level, respectively.

Table 6

Descriptive Statistics for The Trade-Off Sample

Panel A - Country Breakdown

Country	# Firm	Percent	Frequency	Percent
AUSTRALIA	28	4.74	158	4.62
BELGIUM	18	3.05	108	3.16
DENMARK	29	4.91	171	5
FINLAND	53	8.97	335	9.79
FRANCE	131	22.17	724	21.16
GERMANY	51	8.63	281	8.21
GREECE	11	1.86	47	1.37
IRELAND	13	2.2	79	2.31
NETHERLANDS	50	8.46	331	9.67
PORTUGAL	11	1.86	61	1.78
SWEDEN	73	12.35	429	12.54
SWITZERLAND	15	2.54	86	2.51
UNITED KINGDOM	108	18.27	612	17.88
Total	591	100	3,422	100

Note: Table 6, Panel A presents the country distribution of the adopter observations that have sufficient data to calculate *CCAC1*, *CCAC2*, *AQ*, and other variables used in Eq. (8), (9), and (10).

Panel B - Descriptive Statistics

Variable	N	Mean	Std	Min	P 25	Median	P75	Max
CCAC1	3422	-10.67	14.34	-236.08	-12.95	-6.97	-3.32	0.00
CCAC2	3422	-13.54	4.56	-46.33	-16.39	-12.96	-10.19	-0.35
AQ	3422	-0.04	0.05	-1.27	-0.05	-0.02	-0.01	0.00
ROE	3422	16.18	19.84	-168.17	8.24	15.17	22.94	267.47
RET	3422	0.20	0.48	-0.90	-0.06	0.17	0.42	5.14
LRET	3422	0.24	0.58	-0.94	-0.05	0.17	0.44	16.95
MVE	3422	13.21	1.92	7.31	11.82	13.08	14.51	18.86

Table 6, Panel B provides descriptive statistics for the adopter observations that have sufficient data to calculate *CCAC1*, *CCAC2*, *AQ* and other variables used in Eq. (8), (9) and (10). Detailed data definitions are provided in the Appendix.

Table 6 continued

Panel C - Correlation Matrix							
Variable	*CCAC1*	*CCAC2*	*AQ*	*ROE*	*RET*	*LRET*	*MVE*
CCAC1							
CCAC2	***0.049***						
AQ	***0.072***	0.003					
ROE	***-0.057***	0.007	***-0.106***				
RET	***0.050***	0.018	***-0.079***	***0.203***			
LRET	***0.053***	0.015	-0.060	***0.293***	***0.153***		
MVE	***-0.051***	**0.042**	***0.117***	***0.274***	0.018	***0.079***	

Table 6, Panel C presents the Spearman correlation matrix. Bold and italicized numbers are significant at 0.01, bold numbers are significant at 0.05, and italicized numbers are significant at 0.1 level, respectively.

CHAPTER 7

EMPIRICAL ANALYSIS

Pre- and Post-IFRS Adoption Empirical Analysis Findings

Accounting Comparability and Representational Faithfulness Analysis

Tables 7 to 9 report the results of the cross-country accounting comparability and representational faithfulness analyses. Panel A reports the empirical results for the difference-in-difference test, while Panel B and Panel C report the results for the multivariate regression analyses.

Table 7 reports the empirical results for the cross-country accounting comparability analysis. In Panel A, the adopter and nonadopter countries have significant difference in *CCAC1* in the pre-IFRS period; however, *CCAC1* for the adopters increases after the adoption while it decreases for the nonadopters. As a result, the improvement in *CCAC1* for the adopters is significantly larger than that for the nonadopters (1.190 vs. -1.392), leading to a significant difference in changes in *CCAC1* (2.553) between the adopters and nonadopters after the adoption. Looking at *CCAC2*, the adopters also have a significantly lower comparability than the nonadopters in the preadoption period; however, the adopters have a significant improvement (a change of 2.388) with the adoption while the nonadopters have a significant decrease in comparability, leading

Table 7

Empirical Analysis for Cross-Country Comparability

Panel A - Difference-in-Difference Test

		CCAC1		
Variable	Prediction	Pre	Post	Difference 1
Adopters	Pre < Post	-11.584	-10.139	1.190*
Nonadopters	Pre = Post	-9.368	-10.730	-1.392 ***
Difference 2		-2.216 ***	-0.336	**2.553 *** **
		CCAC2		
Adopters	Pre < Post	-15.940	-13.555	2.388 ***
Nonadopters	Pre = Post	-11.740	-12.900	-1.163 ***
Difference 2		-4.200 ***	-0.655 *	**3.551 *** **

Note: Table 7, Panel A presents results for the pre- and post-IFRS difference-in-difference test using the adopter and nonadopter firms with available data to calculate variables needed for the cross-country accounting comparability analysis. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

Panel B - Multivariate Regression Analysis

Dep. Variable	*CCAC1*			*CCAC2*		
	(1)	(2)		(3)	(4)	
Intercept	**-9.389**	**(-12.03)**	***	-12.753	(-38.88)	***
IFRS	**-2.69**	**(-3.99)**	***	-5.003	(-17.41)	***
POST	-0.846	(-1.86)	*	-1.186	(-6.13)	***
IFRS*POST	**2.143**	**(3.65)**	****	**3.658**	**(14.62)**	****
Fixed Effects	C, I			C, I		
Adj.R^2	0.034			0.172		
N	7,824			7,824		

Table 7, Panel B presents results from the multivariate regression analysis for cross-country accounting comparability using adopters and nonadopters with the available data to calculate variables needed for the analysis. Columns (1) and (3) are parameter estimates, and columns (2) and (4) are T-values. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

to a much smaller difference in *CCAC2* between the two samples in the postadoption period (-4.200 vs. -0.655). Moreover, the difference in the change of *CCAC2* between the adopters and nonadopters is significant (3.551).

Panel B of Table 7 presents the results from the multivariate regression analysis of equation (5). Consistent with the results from the difference-in-difference test, the adopters experienced a statistically significant incremental increase in both *CCAC1* and *CCAC2* in the post-IFRS adoption period than the nonadopters. This suggests that IFRS adoption leads to improvement in cross-country accounting comparability among the adopters, which supports H1.

It is interesting to note that there is a negative time trend of comparability (negative coefficient of *POST*), and that nonadopters experience a significant decrease in comparability in the postadoption period. To explore why this is happening, I examine comparability on an annual basis (results untabulated). It seems that comparability decreases for both the adopters and nonadopters for the years of 2007 and 2008, and the nonadopters experience a larger decrease in comparability than the adopters. Future studies are necessary to explore this phenomenon.

Table 8, Panel A displays the analysis results for the within-country comparability changes following IFRS adoption. The nonadopters have a higher *WCAC1* in both the pre- and postadoption periods than the adopters, but the adopters experienced a significantly larger increase in *WCAC1* than the nonadopters following the adoption, and the increase is even larger for *WCAC2*. As a result, the difference between adopters and nonadopters becomes smaller (*WCAC1*) or insignificant (*WCAC2*) after the adoption. The results from the multivariate regression analysis in Panel B (positive coefficient estimate

Table 8

Empirical Analysis for Within-Country Comparability

Panel A - Difference-in-Difference Analysis

		WCAC1		
Variable	Prediction	Pre	Post	Difference 1
Adopters	?	-13.140	-10.660	2.476 *
Nonadopters		-7.779	-8.012	-0.333
Difference		-5.361 ***	-2.640 ***	**2.809 *** **
		WCAC2		
		Pre	Post	
Adopters	?	-16.112	-12.420	3.692 ***
Nonadopters		-10.890	-12.340	-1.449 ***
Difference 2		-5.222 ***	-0.080	**5.141 *** **

Note: Table 8, Panel A presents results of the pre- and post-IFRS difference-in-difference test using the adopters and nonadopters with available data to calculate variables needed for the within-country accounting comparability analysis. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

Panel B - Multivariate Regression Analysis for Within-Country Comparability

Dep. Variable	*WCAC1*			*WCAC2*		
	(1)	(2)		(3)	(4)	
Intercept	-7.721	(-12.22)	***	-7.986	(-11.15)	***
IFRS	-6.717	(-7.77)	***	-9.068	(-12.83)	***
POST	-0.586	(-0.78)		-1.403	(-2.32)	**
PreF	**-0.571**	**(-3.51)**	*******	**-1.257**	**(-9.44)**	*******
*PreF*IFRS*	1.081	(5.87)	***	2.071	(13.71)	***
*PreF*POST*	0.026	(0.21)		-0.019	(-0.19)	**
IFRS*POST	**3.391**	**(3.20)**	*******	**6.249**	**(7.36)**	*******
PreF*IFRS*POST	**-0.105**	**(-0.71)**		**-0.162**	**(-1.38)**	
Fixed Effects	C, I			C, I		
Adj.R^2	0.083			0.202		
N	7,323			7,323		

Panel B presents results from the multivariate regression analysis for within-country accounting comparability using adopters and nonadopters with the available data to calculate variables needed for the analysis. Columns (1) and (3) are parameter estimates

Table 8 continued

and columns (2) and (4) are T-values. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

of *IFRS*POST*) are similar to those in Panel A. The evidence suggests that IFRS adoption leads to a significant improvement for the adopters than for the nonadopters.

Panel B indicates that *PreF* is negatively correlated with within-country comparability. That is, countries with higher flexibility in local standards have lower within-country comparability. Inconsistent with the prediction of H2, which states that changes in within-country comparability are conditional on the flexibility of the pre-IFRS local standards relative to IFRS, the coefficient estimate of *PreF*IFRS*POST* is insignificant. This might be due to the fact that all local standards have higher flexibility than IFRS by construction (and likely by fact too), thus, local standards are always more flexible than IFRS. This might result in insufficient variation in *PreF* for the test to be powerful enough to detect the incremental impact of *PreF* on changes in within-country comparability.

Table 9, Panel A demonstrates the empirical evidence of changes in *AQ* for the adopters and nonadopters following the adoption. The nonadopters have a significantly higher *AQ* than the adopters in both the pre- and postadoption periods. However, the adopters experienced a significant decrease in *AQ* (-0.006) while the nonadopters experienced an insignificant increase in *AQ (*0.004). Thus, the difference in *AQ* (from -0.005 to -0.015) between the two samples becomes larger in the postadoption period.

Panel B shows similar results. While there is an overall significant positive time trend for *AQ* (positive coefficient estimate on *POST*), the adopters experienced a significant incremental decrease in *AQ* than the nonadopters following the adoption (Coefficient of -0.047 on *IFRS*POST*). The coefficient estimate of *PreAQ*IFRS*POST* is significantly positive (0.042), suggesting that adopter firms with high quality local

Table 9

Empirical Analysis for Representational Faithfulness

Panel A - Difference-in-Difference Test

		AQ		
Variable	Prediction	Pre	Post	Difference 1
Adopters	Pre > Post	-0.034	-0.040	-0.006 ***
Nonadopters	Pre = Post	-0.029	-0.025	0.004 *
Difference 2		-0.005 ***	-0.015 ***	**0.010 *** **

Note: Table 9, Panel A presents results of the pre- and post-IFRS difference-in-difference test using the adopters and nonadopters with available data to calculate variables needed for the accounting quality analysis. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

Panel B - Multivariate Regression Analysis for Representational Faithfulness

Dep. Variable	Parameter	T-Value	
Intercept	-0.094	(-10.55)	***
IFRS	-0.058	(6.37)	***
POST	0.029	(4.65)	***
PreAQ	**0.075**	**(8.57)**	***
*PreAQ*IFRS*	-0.060	(-6.49)	***
*PreAQ*POST*	-0.028	(-4.32)	***
IFRS*POST	**-0.047**	**(-6.67)**	****
PreAQ*IFRS*POST	**0.042**	**(5.80)**	****
Fixed Effects	C, I		
Adj.R^2	0.076		
N	7,373		

Panel B presents results from the multivariate regression analysis for representational faithfulness using adopters and nonadopters observations with available data to calculate variables needed for the analysis. Columns (1) and (3) are parameter estimates and columns (2) and (4) are T-values. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

Table 9 continued

Panel C - Multivariate Regression Analysis with the Partitioned Sample						
Dep. Variable	*AQ*					
	PreAQ = 1			*PreAQ* = 0		
	(1)	(2)		(3)	(4)	
Intercept	-0.020	(-9.76)	***	-0.095	(-4.26)	
IFRS	-0.003	(-1.91)	*	0.061	(3.05)	**
POST	0.001	(1.21)		0.028	(2.15)	*
IFRS*POST	**-0.004**	**(-2.86)**	****	**-0.046**	**(-3.15)**	***
Fixed Effects	C, I			C, I		
Adj. R^2	0.064			0.092		
N	4,612			4,612		

Panel C presents results from the multivariate regression analysis for representational faithfulness with the sample partitioned into two groups (high and low) based on the quality of the local accounting standards relative to IFRS. Columns (1) and (3) are parameter estimates and columns (2) and (4) are T-values. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

standards (*PreAQ* =1) either increase more or decrease less in quality than the adopter firms with low quality local standards (*PreAQ* = 0). To further explore this phenomenon, I estimate Eq. (7.1), which examines how countries with high and low quality local standards respond to IFRS adoption in terms of representational faithfulness. Table 9, Panel C reports the results. The evidence suggests that both groups of firms experience decreases in representational faithfulness, but firms with higher quality local standards see less decrease in representational faithfulness than firms with lower quality local standards. The evidence supports H3 in that firms with a different quality of local standards react differently in *AQ* changes after the adoption.

Trade-Off Between Accounting Comparability and Representational Faithfulness Analysis

Finally, Table 10 reports the results for the analysis of the trade-off between improvement in comparability and reduction in representational faithfulness. The results are very consistent with those in Tables 7 and 9. Specifically, the results for the difference-in-difference test in Panel A indicate that there are significant increases in *CCAC1* and *CCAC2* and a significant decrease in *AQ* after the adoption. The results in Panel B also suggest that there is a significant increase in *CCAC1* and *CCAC2* and a significant decrease in *AQ* following the adoption, and that changes in representational faithfulness are conditional on the quality of the local standards relative to the IFRS (significant positive coefficient on *PreAQ*POST*). Panel C presents results from the regression analysis with the partitioned sample. They suggest that firms with higher quality local standards experience less decrease in *AQ* than firms with lower quality local

Table 10

Empirical Analysis for Trade-Off

Panel A - Difference-in-Difference Test

Variable	Prediction	Pre	Post	Difference
CCAC1	Post >Pre	-11.640	-9.991	**1.645***
CCAC2	Post >Pre	-14.420	-12.730	**1.692 *****
AQ	Post <Pre	-0.035	-0.039	**-0.004 *****

Note: Table 10, Panel A presents results of the pre- and post-IFRS adoption difference-in-difference rest for the trade-off sample using the adopter observations with available data to calculate variables needed for the tradeoff analysis. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

Panel B - Multivariate Regression Analysis

Dep. Variable	CCAC1		*CCAC2*		*AQ*	
	(1)		(2)		(3)	
Intercept	-15.175		-17.682		-0.045	
	(-9.62)	***	(-40.70)	***	(-8.01)	
POST	**1.557**		**1.743**		**-0.018**	
	(3.24)	*******	**(13.16)**	*******	**(-4.66)**	*******
PreAQ					0.013	
					(3.19)	**
PreAQ*POST					**0.016**	
					(3.76)	*******
Fixed Effects	C, I		C, I		C, I	
Adj. R^2	0.058		0.291		0.049	
N	3,422		3,422		3,422	

Panel B presents results from the multivariate regression analysis for the trade-off analysis using the adopter observations with the available data to calculate variables needed for the analysis. T-Values (in parenthesis) are under the estimates of the parameters. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

Table 10 continued

Panel C - Multivariate Regression Analysis with the Partitioned Sample												
Dep. Variable	*CCAC1*			*CCAC2*			*AQ*					
	PreAQ =1		*PreAQ*=0	*PreAQ* =1		*PreAQ*= 0	*PreAQ* =1		*PreAQ* = 0			
	(1)		(2)	(3)		(4)	(5)		(6)			
Intercept	-18.333		-15.308	-17.766		-17.749	-0.030		-0.049			
	(-12.16)	***	(-3.97)	(-33.73)	***	(-27.19)	***	(-6.91)	***	(-3.27)	***	
POST	**0.700**		**6.464**	**1.884**		**1.189**		**-0.002**		**-0.017**		
	(1.78)	*****	**(3.58)**	*****	**(12.83)**	*****	**(3.89)**	*****	**(-2.02)**	*****	**(-2.46)**	******
Fixed Effects	C, I		C, I	C, I		C, I	C, I		C, I			
Adj, R^2	0.056		0.145	0.280		0.367	0.035		0.105			
N	2,812		610	2,812		610	2,812		610			

Panel C presents the results from the multivariate regression analysis for the trade-off analysis with the sample partitioned into two groups (high and low) based on the quality of the local accounting standards relative to IFRS (*PreAQ*). T-Values (in parenthesis) are under the estimates of the parameters. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

standards, while both groups of firms experience increases in *CCAC1* and *CCAC2*. This is generally supportive of H4 in that there is a difference in the impact of local accounting standards on changes in representational faithfulness for different firms following IFRS adoption.

Table 11 presents results from further analyses about the link between improvement in comparability and reduction in representational faithfulness with the adoption. Specifically, I calculate changes in firm level *AQ* (*AQ_Diff*), *CCAC1* (*CCAC1_Diff*), and *CCAC2* (*CCAC2_Diff*) with the adoption, and examine the association among them. Panel A presents the descriptive statistics for these three variables. On average, *CCAC1* and *CCAC2* improve while *AQ* decreases with the adoption. Results for the association analysis are presented in Panel B of Table 11. They suggest that changes in *AQ* are positively associated with changes in *CCAC1,* but the association between changes in *AQ* and changes in *CCAC2* is insignificant.

Next, I rank firms by the quality of local accounting standards prior to IFRS adoption (*PreAQ*) to examine how firms with different *PreAQ* react to the adoption in terms of comparability and representational faithfulness. The results are presented in Panel C of Table 11. They suggest that firms with lower *PreAQ* experience a larger reduction in *AQ* (-0.018), more improvement in *CCAC1*(6.450 vs. 0.571), and less improvement in *CCAC2* (1.315 vs. 1.777) than firms with higher quality local standards, which is consistent with the regression results from equations (7) through (11).

Finally, I rank firms according to levels and changes of *AQ*, *CCAC1*, and *CCAC2*, respectively, and examine whether there is any systematic relationship between the levels and changes in *AQ*, *CCAC1*, and *CCAC2* with the adoption. The results are

Table 11

The Link Between Improvement in Comparability and Reduction in Representational Faithfulness

Panel A - Descriptive Statistics

Variable	N	Mean	Std	Min	P25	Median	P75	Max
AQ_Diff	591	-0.004	0.044	-0.652	-0.018	-0.003	0.014	0.172
CCAC1_Diff	591	1.645	12.950	-71.474	-3.296	0.077	4.956	122.796
CCAC2_Diff	591	1.692	3.697	-10.802	-0.745	1.923	3.971	29.840

Note: Table 11 presents results from the analysis for the link between improvement in accounting comparability and reduction in representational faithfulness with the mandatory IFRS adoption. *AQ* is representational faithfulness, *CCAC1* and *CCAC2* are cross-country accounting comparability measures, *POST* is an indicator variable where it is coded 1 if the observation is in the pre-IFRS adoption period, and 0 otherwise. *AQ_Diff*, *CCAC1_Diff*, and *CCAC2_Diff* are firm level improvement in *AQ*, *CCAC1*, and *CCAC2* between the pre- and post-IFRS adoption period, respectively. *CCAC1*POST* and *CCAC2*POST* are the interaction terms of the variables. Detailed variable definitions are provided in the Appendix. Panel A provides descriptive statistics.

Panel B - Correlation between Changes in *AQ* and *CCAC*

Variable	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
AQ_Diff			
CCAC1_Diff	**0.104**		
CCAC2_Diff	-0.058	0.010	

Panel B is the Spearman correlation matrix of improvement in *CCAC1*, *CCAC2*, and *AQ*. Bold and italicized numbers are significant at 0.01, bold numbers are significant at 0.05, and italicized numbers are significant at 0.1 level, respectively.

Panel C - Rank Firms by *PreAQ*

	Mean			Median		
PreAQ	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.001	0.571	1.777 ***	-0.002 *	-0.129	2.015 ***
Low	-0.018 **	6.450 ***	1.315 ***	-0.004	2.114 *	1.110 *
	0.017###	-5.879 ###	0.462 ###	-0.002 #	-5.879 ###	0.462 ###

Panel C presents results for the rank analysis of the association between comparability and representational faithfulness. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided). ###, ##, and # indicate that the values are different from each other (between the high and low groups) at 0.01, 0.05, and 0.1 level, respectively.

Table 11 continued

Panel D - Rank Firms by *AQ*						
AQ	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.016 ***	-9.960 ***	-13.496 ***	-0.003 ***	1.563 ***	1.738 ***
Low	-0.073 ***	-12.004 ***	-13.631 ***	-0.005 ***	2.054 ***	1.670 ***
	0.089 ###	2.044 ###	0.135	0.002	-0.490 ##	0.068

Panel D presents results for the rank analysis of the association between comparability and representational faithfulness. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided). ###, ##, and # indicate that the values are different from each other (between the high and low groups) at 0.01, 0.05, and 0.1 level, respectively.

Panel E - Rank Firms by *AQ_Diff*						
AQ_Diff	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.033 ***	-11.193 ***	-13.608 ***	0.017 ***	3.111 ***	1.648 ***
Low	-0.038 ***	-10.045 ***	-13.464 ***	-0.030 ***	0.075	1.793 ***
	0.005 ##	-1.148	-0.144	0.047 ###	3.036 ###	-0.145

Panel E presents results for the rank analysis of the association between comparability and representational faithfulness. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided). ###, ##, and # indicate that the values are different from each other (between the high and low groups) at 0.01, 0.05, and 0.1 level, respectively.

Panel F - Rank Firms by *CCAC1*						
CCAC1	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.034 ***	-4.761 ***	-13.363 ***	-0.004 ***	1.140 ***	1.564 ***
Low	-0.040 ***	-22.695 ***	-13.908 ***	-0.004 ***	2.944 ***	2.018 ***
	0.006 ###	17.934 ###	0.545 ###	0.000	-1.804 ###	-0.454 ###

Panel F presents results for the rank analysis of the association between comparability and representational faithfulness. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided). ###, ##, and # indicate that the values are different from each other (between the high and low groups) at 0.01, 0.05, and 0.1 level, respectively.

Table 11 continued

Panel G - Rank Firms by *CCAC1_Diff*						
CCAC1_Diff	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.038 ***	-13.248 ***	-13.660 ***	-0.002 *	10.536 ***	1.813 ***
Low	-0.034 ***	-8.998 ***	-13.466 ***	-0.005 ***	-3.986 ***	1.650 ***
	-0.004 ###	-4.260 ###	-0.194 ##	0.003 ###	14.522 ###	0.163

Panel G presents results for the rank analysis of the association between comparability and representational faithfulness. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided). ###, ##, and # indicate that the values are different from each other (between the high and low groups) at 0.01, 0.05, and 0.1 level, respectively.

Panel H - Rank Firms by *CCAC2*						
CCAC2	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.037 ***	-10.274 ***	-10.196 ***	-0.006 ***	1.458 ***	1.240 ***
Low	-0.034 ***	-11.134 ***	-17.422 ***	-0.002 **	2.055 ***	2.264 ***
	-0.003	0.860	7.226 ###	-0.004 #	-0.597 #	-1.024 ###

Panel H presents results for the rank analysis of the association between comparability and representational faithfulness. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided). ###, ##, and # indicate that the values are different from each other (between the high and low groups) at 0.01, 0.05, and 0.1 level, respectively.

Panel I - Rank Firms by *CCAC2_Diff*						
CCAC2_Diff	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.035 ***	-11.252 ***	-14.473 ***	-0.006 ***	1.234 ***	4.322 ***
Low	-0.037 ***	-10.044 ***	-12.534 ***	-0.002 **	2.277 ***	-1.114 ***
	0.002	-1.208 ###	-1.939 ###	-0.004	-1.043	5.436 ###

Panel I presents results for the rank analysis of the association between comparability and representational faithfulness. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided). ###, ##, and # indicate that the values are different from each other (between the high and low groups) at 0.01, 0.05, and 0.1 level, respectively.

Table 11 continued

Panel J - Multivariate Regression Analysis				
Dep. Variable	AQ		*AQ*	
	(1)		(2)	
Intercept	-0.027		-0.036	
	(-5.10)	***	(-5.19)	***
POST	0.001		**-0.004**	
	(0.21)		**(-2.47)**	**
CCAC1	0.001			
	(1.28)			
*CCAC1*POST*	0.001			
	(4.55)	***		
CCAC2			-0.001	
			(-1.86)	*
*CCAC2*POST*			0.001	
			(0.55)	
Fixed Effects	C, I		C, I	
Adj. R^2	0.057		0.046	
N	3,422		3,422	

Panel J presents results from the multivariate regression analysis. ***, **, and * indicate the values are significantly different from 0 at levels at 0.01, 0.05, and 0.1 (two-sided).

presented in Panels D through I. Similar to results presented in Panels B and C, there is no systematic relationship between *AQ*, *CCAC1*, and *CCAC2*, and no systematic relationship between changes in *AQ*, changes in *CCAC1*, and changes in *CCAC2* with the adoption. For example, in Panel E, firms with high *AQ* experience less reduction in *AQ* (-0.003 vs.– 0.005), less improvement in *CCAC1* (1.563 vs. 2.054), but more improvement in *CCAC2* (1.738 vs. 1.670) than firms with lower *AQ*.

Table 11, Panel J presents the results from the multivariate regression analysis of equation (11). Column (1) displays the results when the explanatory variable is *CCAC1* and column (2) presents the results when the explanatory variable is *CCAC2*. Consistent with the results in Panels B through I of Table 11, *CCAC1* is positively associated with changes in *AQ*, but *CCAC2* is not. Also, the coefficient on the interaction term of *CCAC2* and *POST* is not significant. Overall, the results suggest that there is no clear pattern in the relationship between *CCAC* and *AQ*.

In summary, the analyses of the link between comparability and representational faithfulness provide no strong evidence of a systematic relationship between improvement in comparability and reduction in representational faithfulness. This is not in contradiction with the evidence of the overall trade-off between improvement in *CCAC* and deduction in *AQ*, because there does not have to be a systematic pattern of the relationship between the two properties of financial reporting.

CHAPTER 8

SENSITIVITY ANALYSIS

In this chapter, I perform additional analyses to further examine the impact of the quality of local accounting standards prior to IFRS adoption on changes in representational faithfulness. I also perform the difference-in-difference test to study changes in comparability and representational faithfulness with the adoption, and to investigate the link between improvement in comparability and reduction in representational faithfulness. The last two tests are preformed with median values because mean values are sensitive to the influence of extreme values.

Trade-Off Analysis with Alternative Proxy for *PreAQ*

In Chapter 4, I constructed *PreAQ* to proxy for the quality of local accounting standards prior to IFRS adoption. *PreAQ* is calculated by comparing representational faithfulness, or *AQ*, of the local accounting standards with IFRS. The advantage of this measure is that it is constructed relative to IFRS, but the disadvantage is that it is constructed internally and thus, might impose endogeneity concern. To overcome this disadvantage, I build a second measure of quality of local standards external to my sample, *PreAQ1*. I use existing measures of country disclosure requirement (*DISREQ*),

securities regulation (*SECREG*), and quality of law (*LAW*) as developed in Hail and Leuz (2005) to derive this second pre-IFRS accounting quality proxy. All three variables are scored from 0 to 1. *DISREQ* measures a country's disclosure requirement, *SECREG* captures the effectiveness of a country's securities regulation, and *LAW* measures the overall quality of a country's legal system. I calculate an equal-weighted average of the three scores for each country, *CPreAQ1*, and calculate an equal-weighted mean for all countries, *APreAQ1*. *PreAQ1* is coded 1 if a country's *CPreAQ1* is higher than *APreAQ1*, and 0 otherwise. Table 12 presents the scoring information. I then repeat the analysis in Chapter 7 regarding the trade-off between improvement in comparability and reduction in representational faithfulness conditional on *PreAQ1*. Table 13 presents the results from the analysis.

Essentially, the results in Panel A provide weak evidence that changes in representational faithfulness are conditional on *PreAQ1*, the quality of local accounting standards prior to IFRS adoption. Specifically, *AQ* decreases after the mandatory IFRS adoption (coefficient of -0.008), which is consistent with the results when using *PreAQ* to proxy for the quality of local accounting standards. Also, firms with higher quality local accounting standards have weak significant incremental change over firms with lower quality local accounting standards after the adoption (coefficient of 0.006 for *PreAQ1*POST*). This positive coefficient suggests that firms with high and low quality local standards react to IFRS adoption differently. To further explore this phenomenon, I partition the sample into high (*PreAQ1* =1) and low (*PreAQ1*= 0), two groups, and repeat the analysis as I did in Chapter 7. Table 13, Panel B presents the results. The results suggest that there is a slight difference between the high and low groups in terms of

Table 12

Alternative Proxy for the Quality of Local Accounting Standards

Country	*DISREQ*	*SECREG*	*LAW*	*CPreAQ1*	*APreAQ1*	*PreAQ1*	*PreAQ*
Argentina	0.50	0.43	0.54	0.49	0.65	0	0
Australia	0.75	0.77	1.00	0.84	0.65	1	0
Belgium	0.42	0.34	1.00	0.59	0.65	0	1
Brazil	0.25	0.39	0.63	0.42	0.65	0	1
Canada	0.92	0.91	1.00	0.94	0.65	1	1
China	0.42	0.34	0.63	0.46	0.65	0	0
Denmark	0.58	0.50	1.00	0.69	0.65	1	0
Finland	0.50	0.49	1.00	0.66	0.65	1	1
France	0.75	0.58	0.90	0.74	0.65	1	1
Germany	0.42	0.21	0.92	0.52	0.65	0	0
Greece	0.33	0.38	0.62	0.44	0.65	0	1
India	0.92	0.75	0.42	0.70	0.65	1	0
Ireland	0.67	0.49	0.78	0.65	0.65	0	1
Japan	0.75	0.47	0.90	0.71	0.65	1	1
Korea (South)	0.75	0.55	0.54	0.61	0.65	0	1
Malaysia	0.92	0.78	0.68	0.79	0.65	1	0
Mexico	0.58	0.35	0.54	0.49	0.65	0	1
Netherlands	0.50	0.62	1.00	0.71	0.65	1	1
Norway	0.58	0.43	1.00	0.67	0.65	1	1
Pakistan	0.58	0.52	0.30	0.47	0.65	0	1
Philippines	0.83	0.89	0.27	0.66	0.65	1	1
Portugal	0.42	0.55	0.87	0.61	0.65	0	1
Singapore	1.00	0.84	0.86	0.90	0.65	1	1
Sri Lanka	0.75	0.52	0.19	0.49	0.65	0	1
Sweden	0.58	0.45	1.00	0.68	0.65	1	1
Switzerland	0.67	0.48	1.00	0.72	0.65	1	1
Thailand	0.92	0.62	0.63	0.72	0.65	1	0
United Kingdom	0.83	0.73	0.86	0.81	0.65	1	1
United States	1.00	0.97	1.00	0.99	0.65	1	1
Average	0.67	0.57	0.77	0.67	0.65	0.62	0.72

Note: This table presents the scoring information for *PreAQ1*, the alternative proxy for the quality of local accounting standards prior to IFRS adoption. *DISREQ*, *SECREG*, and *LAW* are derived from the Bae et al. (2008) study. They measure the strength of a country's disclosure requirement and securities regulation, and the quality of law, respectively. *CPreAQ1* is the country average of the three indices and *APreAQ1* is the average of the three indices for all countries. *PreAQ1* is 1 if *CPreAQ1* is greater than *APreAQ1*, and 0 otherwise. *PreAQ* is the primary proxy for accounting quality of the local standards prior to IFRS adoption.

Table 13

Sensitivity Analysis with Alternative Proxy for *PreAQ*

Panel A – Multivariate Regression Analysis with the Full Sample						
Dep. Variable	*CCAC1*		*CCAC2*		*AQ*	
	(1)		(2)		(3)	
Intercept	-15.175		-17.682		-0.030	
	(-9.62)	***	(-40.70)	***	(-5.34)	***
POST	**1.557**		**1.743**		**-0.008**	
	(3.24)	*******	**(13.16)**	*******	**(-3.29)**	*******
PreAQ1					-0.001	
					(-0.40)	
PreAQ1*POST					**0.006**	
					(1.77)	*****
Fixed Effects	C, I		C, I		C, I	
Adj. R^2	0.057		0.291		0.046	
N	3,422		3,422		3,422	

Note: Table 13 presents the sensitivity analysis for the trade-off analysis with *PreAQ1* as the proxy for the quality of the local accounting standards. Panel A presents results from the multivariate regression analysis for the trade-off analysis using adopter observations with the available data to calculate variables needed for the analysis. T-Values (in parenthesis) are under the estimates of the parameters. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

Table 13 continued

Panel B - Multivariate Regression Analysis with the Partitioned Sample												
Dep. Variable	*CCAC1*				*CCAC2*				*AQ*			
	PreAQ1 =1		*PreAQ1* = 0		*PreAQ1* =1		*PreAQ1* = 0		*PreAQ1* =1		*PreAQ1* = 0	
	(1)		(2)		(3)		(4)		(5)		(6)	
Intercept	-21.998		-9.710		-17.804		-18.129		-0.035		-0.026	
	(-10.15)	***	(-4.23)	***	(-24.42)	***	(-34.39)	***	(-5.77)	***	(-3.04)	***
POST	**1.561**		**1.624**		**2.171**		**1.185**		**-0.002**		**-0.008**	
	(2.98)	*******	**(1.89)**	*****	**(12.31)**	*******	**(6.01)**	*******	**(-1.47)**		**(-2.37)**	******
Fixed Effects	C, I		C, I		C, I		C, I		C, I		C, I	
Adj, R^2	0.074		0.072		0.311		0.298		0.058		0.053	
N	1,911		1,511		1,911		1,511		1,911		1,511	

Panel B presents results from the multivariate regression analysis for the trade-off analysis with the sample partitioned into high and low, two groups based on the quality of the local accounting standards relative to IFRS. T-Values (in parenthesis) are under the estimates of the parameters. ***, **, and * indicate significance levels at 0.01, 0.05, and 0.1 (two-sided), respectively.

decreases in *AQ* after the adoption. Specifically, the high group has no reduction in *AQ* but the low group does. Overall, the results support the conclusion drawn in Chapter 7 that IFRS adopters experience different levels of reduction in *AQ* with IFRS adoption.

Difference-in-Difference Test with Median Values

Next, I perform the difference-in-difference test for changes in comparability and representational faithfulness to test hypotheses 1 to 4 with median values instead of mean values, because the mean values are sensitive to the influences of extreme values. Specifically, I calculate the median value of *AQ*, *CCAC1*, and *CCAC2* in the pre- and postadoption period, and test to see if there is a significant difference in the values between the two periods. The results are presented in Table 14. Panel A of Table 14 corresponds to Panel A of Table 7, Panel B of Table 14 corresponds to Panel A of Table 8, Panel C of Table 14 corresponds to Panel A of Table 9, and Panel D of Table 14 corresponds to Panel A of Table 10, respectively. In general, the results are similar to the results from the difference-in-difference test with the mean values reported in Chapter 7. Specifically, there is improvement in comparability for adopters and decrease in comparability for nonadopters. In addition, there is a reduction in *AQ* for the adopters and improvement in *AQ* for the non-adopters. The evidence from the analysis with the median values validates the results obtained with the mean values in Chapter 7.

Table 14

Difference-in-Difference Test with Median

Panel A - Difference-in-Difference Test for the Cross-Country Comparability Sample

CCAC1

Variable	Prediction	Pre	Post	Difference 1
Adopters	Pre < Post	-8.214	-7.786	0.338
Nonadopters	Pre = Post	-7.251	-8.438	-1.187 ***
Difference 2		-0.963 ***	0.652	**1.525 *** **

CCAC2

Adopters	Pre < Post	-15.766	-13.616	2.150 ***
Nonadopters	Pre = Post	-11.335	-12.875	-1.540 ***
Difference 2		-4.431 ***	-0.741 ***	**3.690 *** **

Note: Table 14 presents results for the difference-in-difference test with median values. The results correspond to the results for the difference-in-difference test presented in Tables 7, 8, 9, and 10. All variables were defined previously.

Panel B - Difference-in-Difference Test for the Within-Country Comparability Sample

WCAC1

Variable	Prediction	Pre	Post	Difference 1
Adopters	?	-9.175	-7.940	1.235 *
Nonadopters		-5.652	-6.163	-0.511
Difference		-3.523 ***	-1.777 ***	**1.746 *** **

WCAC2

		Pre	Post	
Adopters	?	-13.932	-10.949	2.983 ***
Nonadopters		-9.285	-10.865	-1.580 ***
Difference 2		-5.222 ***	-0.080	**4.563 *** **

Table 14 presents results for the difference-in-difference test with median values. The results correspond to the results for the difference-in-difference test presented in Tables 7, 8, 9, and 10. All variables were defined previously.

Table 14 continued

Panel C - Difference-in-Difference Test for the Representational Faithfulness Sample				
		AQ		
Variable	Prediction	Pre	Post	Difference 1
Adopters	Pre > Post	-0.027	-0.031	-0.004 ***
Nonadopters	Pre = Post	-0.021	-0.018	0.003 **
Difference 2		-0.006	-0.015 ***	**0.007 *****

Table 14 presents results for the difference-in-difference test with median values. The results correspond to the results for the difference-in-difference test presented in Tables 7, 8, 9, and 10. All variables were defined previously.

Panel D - Difference-in-Difference Test for the Trade-Off Sample				
Variable	Prediction	Pre	Post	Difference
CCAC1	Post >Pre	-8.130	-7.809	**0.321***
CCAC2	Post >Pre	-14.371	-12.697	**1.674 *****
AQ	Post <Pre	-0.027	-0.030	**-0.003 *****

Table 14 presents results for the difference-in-difference test with median values. The results correspond to the results for the difference-in-difference test presented in Tables 7, 8, 9, and 10. All variables were defined previously.

Rank Analysis with Median Values

Finally, I perform rank analysis with median values to further explore the relationship between improvement in accounting comparability and reduction in representational faithfulness as I did for Panels D through I of Table 11. The rank analyses for Panels D through I of Table 11 are done with mean values. Mean values are subject to the influence of extreme values, but median values are not. The results for the analyses with median values are presented in Table 15. Similar to the results presented in Table 11, the results in Table 15 suggest no clear pattern of relationship between improvement in comparability and representational faithfulness.

Table 15

Analysis of the Link Between Improvement in Comparability and Reduction in Representational Faithfulness with Median

Panel A - Rank Firms by *AQ*						
AQ	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.015 ***	-6.579 ***	-13.001 ***	-0.002 ***	0.005	1.967 ***
Low	-0.056 ***	-7.728 ***	-12.827 ***	-0.003 **	0.440 ***	1.879 ***
	0.041###	1.149 ###	-0.174	0.001	-0.435 ##	0.097

Note: Table 15 presents results for the rank analysis for the link between the improvement in comparability and reduction in representational faithfulness with mandatory IFRS adoption with median values of change in *AQ*, *CCAC1*, and *CCAC2*. All variables were defined previously.

Panel B - Rank Firms by *AQ_Diff*						
AQ_Diff	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.024 ***	-6.964 ***	-13.081 ***	0.011 ***	0.984 ***	1.923 ***
Low	-0.025 ***	-7.005 ***	-12.828 ***	-0.019 ***	-0.421 ***	1.965 ***
	0.001 ###	0.041 ###	-0.253	0.030 ###	1.405 ###	-0.042

Table 15 presents results for the rank analysis for the link between the improvement in comparability and reduction in representational faithfulness with mandatory IFRS adoption with median values of change in *AQ*, *CCAC1*, and *CCAC2*. All variables were defined previously.

Panel C - Rank Firms by *CCAC1*						
CCAC1	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.024 ***	-4.575 ***	-12.782 ***	-0.003 ***	-0.071	1.649 ***
Low	-0.027 ***	-16.680 ***	-13.273 ***	-0.002 ***	1.010 ***	2.252 ***
	0.003 ##	12.105 ###	0.491 #	-0.001	-1.081 ###	-0.603 ###

Table 15 presents results for the rank analysis for the link between the improvement in comparability and reduction in representational faithfulness with mandatory IFRS adoption with median values of change in *AQ*, *CCAC1*, and *CCAC2*. All variables were defined previously.

Table 15 continued

Panel D - Rank Firms by *CCAC1_Diff*						
CCAC1_Diff	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.026 ***	-8.124 ***	-13.313 ***	0.000	6.746 ***	2.094 ***
Low	-0.024 ***	-6.490 ***	-12.697 ***	-0.004 ***	-2.160 ***	1.760 ***
	-0.002 ###	-1.634 ###	-0.616 ###	0.004 ###	8.906 ###	0.334 ##

Table 15 presents results for the rank analysis for the link between the improvement in comparability and reduction in representational faithfulness with mandatory IFRS adoption with median values of change in *AQ*, *CCAC1*, and *CCAC2*. All variables were defined previously.

Panel E - Rank Firms by *CCAC2*						
CCAC2	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.025 ***	-6.773 ***	-10.365 ***	-0.003 ***	-0.071	0.845 ***
Low	-0.024 ***	-7.159 ***	-16.714 ***	-0.002 **	0.337 ***	2.418 ***
	-0.001	0.426	6.349 ###	-0.001	-0.408 ##	-1.573 ###

Table 15 presents results for the rank analysis for the link between the improvement in comparability and reduction in representational faithfulness with mandatory IFRS adoption with median values of change in *AQ*, *CCAC1*, and *CCAC2*. All variables were defined previously.

Panel F - Rank Firms by *CCAC2_Diff*						
CCAC2_Diff	*AQ*	*CCAC1*	*CCAC2*	*AQ_Diff*	*CCAC1_Diff*	*CCAC2_Diff*
High	-0.024 ***	-7.685 ***	-14.025 ***	-0.002 ***	0.274 **	3.833 ***
Low	-0.025 ***	-6.391 ***	-12.014 ***	-0.003 **	-0.071 ***	-0.745 ***
	0.001	-1.295 ###	-2.011 ###	0.001	0.345	4.578 ###

Table 15 presents results for the rank analysis for the link between the improvement in comparability and reduction in representational faithfulness with mandatory IFRS adoption with median values of change in *AQ*, *CCAC1*, and *CCAC2*. All variables were defined previously.

CHAPTER 9

CONCLUSION

The objective of IFRS adoption is to increase both accounting comparability and quality. Although it is a wide concern that adopting a single set of global accounting standards might lead to economic events being accounted for inappropriately, or dissimilar economic events being treated similarly, and thus, affecting the representational faithfulness of financial reporting, no studies have examined the potential trade-off between comparability and representational faithfulness for the same set of firms, at the same time. Moreover, the existing comparability proxies seem to have construct validity concerns and are not readily applicable in the international market due to data limitations, which makes the prior evidence on cross-country comparability unconvincing. My study directly examines the trade-off between improvement in accounting comparability and reduction in representational faithfulness with alternative and refined comparability measures developed in this study. In addition, I provide the first evidence on changes in within-country comparability following IFRS adoption.

I document empirically that cross-country accounting comparability increases for adopters relative to nonadopters following IFRS adoption, but representational faithfulness decreases at the same time. I also document that within-country comparability increases incrementally more for the adopters than the nonadopters,

although the nonadopters have higher within-country comparability than the adopters in the pre-IFRS period. Inconsistent with my prediction of H2, the impact of IFRS adoption on within-country comparability is not conditional on the flexibility of the pre-IFRS local standards. This might suggest that *PreF* is not a strong proxy for flexibility, but more likely, it suggests that it is true that all local accounting standards are more flexible than IFRS, thus, by nature there is not enough variation in flexibility to detect the impact of flexibility on changes in within-country accounting comparability.

This study contributes to the accounting literature in three ways. First, it provides evidence to the standard setters in the U.S. and the world that there is a trade-off between improved accounting comparability and reduction in representational faithfulness with the adoption. The evidence from this thesis implies that while there are benefits of utilizing a single set of accounting standards, there are also costs associated with it. Second, this thesis examines how IFRS adoption affects within-country accounting comparability and provides preliminary evidence on this matter. Last but not least, I develop refined and alternative comparability measures that are suitable for both the international and the U.S. markets. I conduct two tests to examine the construct validity of the comparability proxies developed in this thesis. The overall evidence suggests that *CCAC2* is a superior measure of accounting comparability to *CCAC1*, but both measures are reasonable proxies for accounting comparability.

There are at least a couple of studies that can be developed from this thesis. The first one is to examine the relationship between accounting comparability and proprietary costs. If firms use comparable accounting methods, more information, including proprietary information about the firm, will be revealed than if firms use noncomparable

accounting methods. The concern of potential proprietary costs associated with IFRS adoption has been expressed in the business world but no studies have provided empirical evidence. Increased proprietary costs with IFRS adoption can be generated from two sources: increased disclosure and increased accounting comparability. The accounting literature has established that disclosure level is associated with proprietary costs, but no studies have investigated the relationship between comparability and proprietary costs. Mandatory IFRS adoption is an ideal setting to examine the relationship between accounting comparability and proprietary costs because this is the setting where accounting comparability changes. A study examining whether proprietary costs increase with improvement in accounting comparability can not only provide evidence to the business world regarding one of the potential costs of adopting a single set of accounting standards, but also can provide evidence of the link between accounting comparability and proprietary costs.

The second study is to examine the impact of accounting comparability on decision usefulness of financial information. The accounting conceptual framework posits that the usefulness of financial reporting is enhanced if the information is representationally faithful (and relevant), but the usefulness of the financial information is not enhanced if that information is comparable but not faithfully representative of the underlying economics. The mandatory IFRS adoption is the perfect setting for examining the impact of representational faithfulness and comparability on decision usefulness of financial reporting because, as suggested in this thesis, IFRS adoption leads to improved comparability, but reduced representational faithfulness.

APPENDIX

VARIABLE DEFINITIONS

Variable		Definition
AQ	=	accruals quality estimated by the cross-sectional modified Dechow and Dichev model.
AQ_Diff	=	change in *AQ* with the mandatory IFRS adoption calculated by subtracting the firm mean of *AQ* in the preadoption period from the firm mean of *AQ* in the postadoption period.
Cash	=	cash (wc02001).
ΔCASH	=	change in cash (wc02001) between year t-1 and t.
CA	=	current assets (wc02201).
ΔCA	=	change in current assets (wc02201) between year t-1 and t.
CCAC1	=	the first measure of cross-country accounting comparability.
CCAC1_Diff	=	change in *CCAC1* with the mandatory IFRS adoption calculated by subtracting the firm mean of *CCAC1* in the preadoption period from the firm mean of *CCAC1* in the postadoption period.
CCAC2	=	the second measure of cross-country accounting comparability.
CCAC2_Diff	=	change in *CCAC2* with the mandatory IFRS adoption calculated by subtracting the firm mean of *CCAC2* in the preadoption period from the firm mean of *CCAC2* in the postadoption period.
CL	=	current liabilities (wc03101).
ΔCL	=	change in current liabilities (wc03101) between year t-1 and t.
CFO	=	cash flow from operations (wc04860).
cfo1	=	cash flow from operations (wc04860) scaled by average total assets.
ROE_{imt}	=	difference in return on equity (ROE) between the subject firm and its pair that is matched by industry, year, and fiscal year end from two countries.
GDP	=	GDP per capita, calculated as the country's gross domestic product (GDP) divided by the country's total population, where both the gross domestic product and the population data are obtained from the World Bank World Development Indicators at www.worldbank.org/data.

Variable		Definition
GDP_{imt}	=	cross-country differences in GDP per capita between the subject firm and its pair that is matched by industry, year, and fiscal year end from two countries.
IFRS	=	an indicator variable equal to 1 if the firm is a mandatory IFRS adopter, and 0 otherwise.
Mcap	=	market value of common equity (wc08001).
MVE	=	log of market value of common equity (wc08001).
MVE_{imt}	=	difference in MVE between the subject firm and its pair that is matched by industry, year, and fiscal year end from two countries.
NIBPD	=	net income before preferred dividend (wc01651).
POST	=	an indicator variable equal to 1 if the observation is in the post-IFRS (year 2005 and beyond) period, and 0 otherwise.
PPE	=	gross value of property, plant, and equipment (wc02301).
PreAQ	=	accounting quality of the local accounting standards relative to IFRS.
PreAQ1	=	alternative proxy of accounting quality of local accounting standards prior to IFRS adoption.
PreF	=	accounting flexibility of the local accounting standards relative to IFRS.
RET	=	firm level annual returns calculated as year-end price subtracting beginning price divided by beginning price.
LRET	=	lagged or last year's returns.
REV	=	net sales or revenues (wc01001).
ΔREV	=	change in net sales or revenues (*REV*) between year t-1 and t.
SIZE	=	log of total assets (wc02999).
STD	=	short term debt (wc03051).
ΔSTD	=	change in short term debt (*STD*) between year t-1 and t.
TCA	=	total current accruals.
WCAC1	=	the first measure of within-country accounting comparability.
WCAC2	=	the second measure of within-country accounting comparability.

Note: Variables prefixed by wc- are the mnemonic identifiers of the raw data items obtained from WorldScope.

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